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A Guide to the Use and Understanding of the Ohio Crop Model

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Preface

This document is intended to serve the following purposes: 1) to provide a brief description for persons desiring to become competent users or administrators of the model, 2) to provide some warning concerning limitations of the model, and 3) to explain the procedures both for modifying the data stored internally in the model and for running the computer model. It is hoped that this article will make it easier for new users to tackle the problem of becoming acquainted with this large computer model and its capabilities.

This article supplements material listed in the Annotated Bibliography. These references describe the original model from which the Ohio Crop Model was adapted. References 3 and 4 in the Annotated Bibliography provide a starting place for new users. In addition, references 1 and 6 contain detailed explanations of the program. The purpose of this article is to supplement these general and detailed references in order to better familiarize the Ohio user with the model. The capabilities of the model are fairly well documented elsewhere (see reference 1 in Annotated Bibliography); however, some of the limitations have not been documented.

The capabilities of most computer models, once designed, are not easily changed. This model is no exception in this regard. However,

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considerable flexibility has been built into the model for allowing user data changes.

The structure of the model is a linear programming model which organizes the grain farm's activities in order to maximize profits. It is suggested that the user accept this structure as it is now designed. Future modifications of the structure are possible, but considerable costs would be incurred.

Model Description

The Ohio Crop Budget model has been operational at Ohio State since January 1976. The model was originally developed by the Department of Agricultural Economics at Purdue for the purpose of aiding decision making among grain crop alternatives. It was and is used extensively for extension education purposes. The first use of the model in Ohio was for research to examine minimum tillage systems on different Ohio soils and to investigate optimal farm organization under ranges of output and input prices. This research also served the purpose of verifying that the model is operational. Extension programs using the program are now being planned.

The model is formulated so that a user can compare two farm plans. One of the farm plans represents the optimum organization and operation of the farm given resource limitations imposed by the user. For example, the farmer may restrict farm size, labor availability, types of crops grown, field conditions, and so forth. Besides resource restrictions, the user may modify the operational efficiencies. For example, the farmer may enter his operating efficiency (e.g. harvesting acres per hour) for various field operations.

The second type of farm plan represents the farmer's "present farm plan." The present farm plan forces the linear programming algorithm to

yield the user's specified farm plan, but sequences the field operations to achieve maximum profits.

The output of the model allows a comparison of the costs and returns between the optimal farm plan and the present farm plan. The output also gives a summary of land use, yields, and income, schedules of field operations, and schedules of labor and tractor utilization for the optimal farm plan. Shadow prices for restricted resources are also printed out to provide valuable information for decision making.

Model Limitations

Any model of the real world will fail to completely represent the intended situation. This model's weaknesses center around (1) the assumption of fixed proportions among several variable inputs, (2) the incapacity to accurately separate field preparation activities into fall and spring sequences, (3) the interpretation of restricted resources, and (4) the questionable restrictions which post planting operations may place on the organization of the farm. However, these weaknesses are far overshadowed by the model's strengths in representing the farm's organization and operation.

The variable inputs which are assumed in fixed proportions include fertilizer, seed, field operations, and drying capacity. Essentially all inputs which are variable in the production of a crop are assumed to be used in fixed proportions. Of course, actual field operations do not combine these inputs in fixed proportions. Fertilizer rates, field equipment sizes, and drying capacity may be varied by the operator. The model in no way investigates the optimal proportions of these resources. Optimum combinations of inputs and the corresponding results in terms of yield for alternative crops must be determined outside the model.

An associated problem is that all land, including rented land, is

considered to be a homogeneous resource. Thus the fixed proportions of resources mentioned above are applied over all land regardless of actual quality.

A second weakness results from the fact that the model lumps together all field preparation necessary for planting corn and soybeans into single activities. Therefore, it is not possible to have fall plowing and spring discing althought it is nearly mandatory on certain Ohio soils. The model uses all the available time for the conglomerate land preparation activity. Thus, when an hour of land preparation is used, the model actually plows, fits, cultivates, etc. as many acres as possible. This feature is contrary to how a farmer operates in that a farmer would plow several acres, then disc several acres when the time was right, etc. Except for the importance of timing and fall plowing, this aggregation of activities is not a terribly discomforting formulation of the model. The preparation and planting schedule may closely resemble many farmers' scheduling sequence in spite of the aggregation of field operations in a model. Several constraints in the model are used to force land preparation for corn and soybeans to occur before or during the planting period. These constraints are labeled "land reconciliation" constraints.

Wheat production is handled with much less detail than corn or soybeans in the model. There are few activities in the model relating to wheat production. All resource requirements for an acre of wheat production, including land preparation resource requirements, are aggregated into the wheat production activities.

The model is built to direct attention at critical periods of the farming operation. Corn and soybean activities are set up in a consistently similar fashion throughout the model. Each is split into the 18

separate activities necessary to allow planting in one of six planting periods and harvesting in one of three harvesting periods. This allows for yield variations due to different planting and harvesting periods. These yield reductions, often called timeliness penalties, are built into the model in order to point out the benefits of correct timing in planting operations and particularly early planting for corn and soybeans.

Care must always be taken in interpreting the output of computer models. In this case, special care must be taken in interpreting the shadow prices for the field hours during these early planting periods. The value per additional unit (if one could somehow acquire one more unit of time at no charge) can be unreasonably high in this particular model. The reason for this stems from the fact that although an extra hour of planting time during a particular period is very valuable, planting in the next period may also be very profitable but unrestricted by planting hours available. The shadow price for the latter period in this case will be zero even though an hour of planting time is quite valuable. The actual value of an hour of time in one period should be the difference between the shadow price for an hour of planting time in that period and the net returns to an hour of planting time in the final plan time period. In most cases the income lost by waiting one more week to plant will be considerably less than the shadow price for planting hours indicated.

The fourth weakness in the model is due to the incorporation of the most planting operations into the planting-harvesting activities. If several post planting operations are called for, the restrictions on time and labor may become so binding that all operations cannot be carried out, thus prohibiting planting. Thus, whether the computer plants or not may

in some situations hinge on the number of cultivations called for in the data. This tends to be somewhat contrary to actual farmer behavior in that farmers may operate in such a way that if they have time to cultivate twice, they will, but if they run out of time, once may be often enough.

Making Permanent Data Changes

The following steps should be taken to make changes in the permanent data stored in the computer as "our plan":

1. Find in the input form the external cell number for the data which will be changed. (The cell numbers listed in the input form are called "external" because they are external to the program. The program changes the order of the data after reading it. The data are referred to by "internal" cell numbers throughout the program.)

2. Find the internal cell number corresponding to the external cell number for the data which will be changed. Use the external to internal cell number conversion table found in Section XII of "Purdue Top Farmer Cropping Model B-9: Computer Program Documentation."

3. Change the card in the INPUT subroutine which contains the data element corresponding to the correct internal cell number. Internal cell number elements are found by counting the elements from the beginning of the DATA cards for PB1, PB2, PB3, etc. near the beginning of the subroutine. The internal cell number for the first element of each card is typed to the right of the card in the card listing of Appendix B.

Example:

The following shows the procedure for changing the corn yield for the April 26 - May 2 planting and September 27 - October 17 harvesting period. The present data shows a corn yield of 110 bushels per acre. This

procedure will change the yield to 150 bushels/acre for that period.

Step 1: The external cell number for that data element found in the input form is 51.

Step 2: Internal cell number 71 corresponds to external cell number 51.

Step 3: The 3rd data element of the card with sequence number JES24 11 is the 71st internal cell number element corresponding to the corn yield for the periods specified in this example (appendix B, p. 1). This card must be repunched with 110 replaced by 150. (Other examples of internal cell number location: the 257th internal cell number element is the first data element of Card JES24 39; the 528th internal cell number element is the fourth data element of JES24 79, etc.)

After all such changes have been made, the program which places the model on tape must be run. The model placed on tape will then contain the new data which can only be changed permanently by the method specified above. (Of course, individual farmers change the data used in the model temporarily with each run).

The data can and should be verified by making a run with no farmer data changes (i.e., accepting the entire "our plan"). The data listing at the end of the output is listed in external cell number order which corresponds to the input form cell number order. This allows an easy check for errors in attempts to change data.

One problem will arise if the program which places the model on tape is run more than once in a short period of time (approximately 24 hours). The program will function properly for the first run, but will not execute for the subsequent runs. The disposition parameter (page 34 of Appendix B) must be changed to (OLD, KEEP) for runs after the first. This change will insure proper execution of all runs after the first run. The first run

always uses a disposition parameter of (NEW, KEEP).

Data Handling Capabilities

The data deck punched from an input form filled out by the farmer is the only record kept for that farmer. The computer combines that information with the permanent data known as "our plan" and produces a temporary data file which is destroyed upon completion of the computer output for that farmer. Changes in data for subsequent runs made by the farmer can be implemented simply by using the original deck, adding the cards necessary for the changes to the end of that deck and resubmitting this new deck. The last data read for a particular cell number is used in the model.

The first seven columns of each data card for the farmer input data are generally the same (see page 41 of reference #6 in annotated bibliography). There is no particular significance or coding requirement for this seven column field. However, it would be a good policy to allow the first three columns to represent the "our plan" under which the data was initially run. The present "our plan" data series is B92. As the "our plan" data is revised it would be wise to change this number. The remaining four columns should be used to assign specific numbers to each individual farmer. This would allow an easy filing system for saving farmer data and for updating farmer data if the model is used in an extension context.

One particular capability which is not being used at present at Ohio State is that of using several different sets of "our plan" values. The model is built to allow up to three different sets of default values. The first card of a data deck can specify 0, 1, or 2 in column 70. (A blank or any other number will be converted to 0). If a 0 is specified, the data stored permanently in the computer program as "our plan" will be used.

If either a 1 or 2 is specified in column 70, a different set of data can be read in and used for "our plan" values. (For specific details see the beginning section of the INPUT subroutine in the matrix generator program.)

The additional "our plan" files could be developed and stored on tape or disc. These files could then be accessed using the appropriate JCL. The files would be stored independently of the main program but would be on-line at all times.

This capability allows development of up to three plans for a) different regions of the state, b) different size farms, or c) different types of farms (part-time, full-time, farms with livestock), etc. This would require development of different input forms with the correct "our plan" values also.

Batch Processing System Information

The original program at Purdue consisted of three distinct steps: the matrix generator, the linear program solver, and the report writer. The Ohio Crop Budget computer implementation of these steps differs from the Purdue implementation because of computer system differences and the need to reduce computer costs. For the casual user, the three steps above are sufficient for an understanding of the system. However, the following explanation is necessary for making changes or for a more complete understanding of the model.

The matrix generator produces the model specifications in the proper form for the linear programming algorithm. Some modifications in the matrix generator were made because of the differences between the MPS/360 algorithm used in the Ohio Crop Budget model and the linear program solver Purdue uses. The output form from MPS/360 is different from that of the

Purdue linear program solver also, so modifications in the report writer were also necessary. In addition, because of a problem of communication between the MPS/360 program and the FORTRAN programs composing the report writer a small PL/1 program was written as an interface between the MPS/360 program and the report writer programs. Documentation for these changes is somewhat lacking; however, a program listing is provided in Appendix B. In summary, computer implementation for the Ohio Crop Budget consists of four steps: the modified matrix generator, the MPS/360 linear program solver, the PL/1 interface between MPS/360 and the FORTRAN programs of the report writer, and the modified report writer.

In order to conserve computer money, three of these four program segments are stored in load module form (compiled and link edited) on tape. The MPS/360 segment is not stored because of the additional space necessary to store this and because it can be called easily from the system. Thus all that is needed to run the program is the data and a small driver deck which calls the program segments from the tape and executes them. Appendix A contains a listing of the driver deck.

One warning is in order. The driver deck first transfers the programs from the tape to a disk in the system. A specific disk number is needed and the present deck uses VOL=77. At peak times during the quarter it is possible that this disk will not have room for the program, so an alternate volume number must be used. Two possible volume numbers are VOL=75 and VOL=85. The volume number must be changed in three places in the main program and one place for each farm's data. Thus for the listing in Appendix A, there are six cards to change (they are noted). This situation has never arisen while using the program, yet under certain situations it is a possibility.

The IRCC computer system limits the number of farm plans which can be run in one program. Changing the job class from B to C will not relax this limitation. One program will allow six or seven farm plans when the computer system is not being used heavily. However, it is recommended that one program should compute no more than five farm plans in a single run. In an extension workshop setting it is possible to repeatedly submit the driver deck with different data in order to compute the large number of farm plans. It might be necessary in this situation to use different VOL numbers and submit data using two or more decks.

One further note must be made. Two special cards precede each farm's data. The second card never changes, but the first one must be modified and different than any other "first card." A good rule to follow is that the first "first card" contain "//ST1 etc.," the second "first card" contain "//ST2 etc.," the third "first card" contain "//ST3 etc.," and so forth.

At present, the costs for running the program are as follows: it costs approximately $3.00 in overhead to get the program set up and approximately $7.00 per farm plan.

Present Files and Records

The programs are stored on a tape which is sloted at the IRCC under

REEL # CFP01

SLØT # L179

PRØJECT # ABK080

In addition, the cards which put the program on tape are stored unaltered im three well labeled boxes and the cards which must be compiled and executed with data are stored in three well labeled boxes as a back up.

Annotated Bibliography of Relevant Articles

1. Lars Brink, Howard Doster, and Bruce McCarl, "Methods and Procedures of the Purdue Top Farmers Cropping Model B-9: An Administrator's Guide," Purdue Agricultural Experiment Station Bulletin.

This article is a nicely detailed and documented report having great value as an administrator's guide. It is highly recommended for persons who work with farmers using the Ohio Crop Budget (Model B-9) and for farmers who are highly interested in the procedures used in modeling their own situations. It is non-technical in nature in that it has no computer language but it relies quite heavily on the cell numbers used in the input form for the model. It discusses input data cell by cell and it provides a useful guide to the discussion of input data by cell number. It tells in detail how the input data is used and it discusses in detail the major resource restrictions and activities of the model. It also discusses some of the assumptions, capabilities, and limitations of the model. However, it does not discuss some of the activities and restrictions necessary for modeling the actual farm situation (for example, the land reconciliation activities which force corn land to be prepared before being planted).

2. Candler, Wilfred, Michael Boehlje, and Robert Saathoff, "Computer Software for Farm Management Extension," American Journal of Agricultural Economics, Vol. 52, No. 1, February 1970.

This is a non-technical article which provides insights into the development and use of computers for extension purposes. It contains information on experience which is valuable in the development and implementation of computer applications in an extension context. There is no information here of value for either administering or using the Ohio Crop Model.

3. Doster, Howard, and Bruce McCarl, Model B-9 Input Form. Purdue Extension Circular EC-447, July 1975.

This is the input form which farmers fill out so their data can be keypunched.

4. McCarl, Bruce A., Wilfred V. Candler, D. Howard Doster, and Paul R. Robbins, "Purdue Top Farmer Automatic Crop Budget: Design, Application and Experience," Department of Agricultural Economics, Purdue University.

This article contains a history of the model development including the conceptualization of the entire model. It contains a good overview of the model with few specifics to bog one down. It should be studied before designing an extension model because it contains much of the rational for the development for the model as it is now. It discusses the man-machine interfaces, the workshop format and some of the experiences resulting from farmer use.

5. McCarl, Bruce A., W. V. Candler, D. H. Doster, and P. R. Robbins, "Experience with Mass Audience Linear Programming for Farm Planning," Department of Agricultural Economics, Purdue University.

This article is almost entirely contained in article number 4 above which is a more encompassing article.

6. McCarl, Bruce and Jeurene Falck, "Purdue Top Farmer Cropping Model B-9: Computer Program Documentation," Purdue Agricultural Experiment Station Bulletin 98.

This article contains the computer program listings and documentation along with specific computer implementation comments. It also contains an input form listing and external to internal (and vice versa) cell number conversion tables. The article is only useful for answering specific computer formulation questions and then a reading knowledge of FORTRAN is required.

APPENDIX A

Note: The following is a complete listing of the driver deck for the model stored on tape. The listing shows the proper placement of data for three farms.

```
//   25000,CLASS=B                                                                    1
/*SETUP     UNIT=TAPE9,ID=(CFP01,L179,READ)
//BWSCSW  PROC   VOL=77                          Change this card if volume 77 is unavailable.
//S5 EXEC PGM=B9,TIME=(,3)
//STEPLIB  DD DSN=UKU.@AEC01.LOAD,UNIT=3330,
//            VOL=SER=IRCC&VOL,DISP=SHR
//FT01F001 DD DSN=&&T1,SPACE=(1330,(100,10)),DISP=(NEW,PASS),
//            UNIT=SYSDA,DCB=(RECFM=FB,LRECL=133,BLKSIZE=1330)
//FT02F001 DD DUMMY
//FT06F001 DD SYSOUT=A
//FT07F001 DD DSN=&&T7,SPACE=(800,(100,10)),DISP=(NEW,PASS),
//            UNIT=SYSDA,DCB=(RECFM=FB,LRECL=80,BLKSIZE=800)
//FT08F001 DD DSN=&&T8,SPACE=(800,(100,10)),DISP=(NEW,PASS),
//            UNIT=SYSDA,DCB=(RECFM=FB,LRECL=80,BLKSIZE=800)
//SLPGO  EXEC PGM=EXECUTOR,TIME=(,8)
//ETA1   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
//MATRIX1    DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
//PROBFILE   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
//SCRATCH1   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
//SCRATCH2   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
//STEPLIB    DD  DSN=SYS4.PROGLIB,DISP=SHR
//SYSMLCP     DD  DSN=&&LCP,DISP=(OLD,PASS)
//SYSPRINT   DD  DSN=&&A,SPACE=(TRK,(20,5)),DISP=(NEW,PASS),
//            UNIT=SYSDA,DCB=BLKSIZE=133
//FILE7     DD DSN=&&T7,DISP=(OLD,DELETE),
//          UNIT=SYSDA,DCB=(RECFM=FB,LRECL=80,BLKSIZE=800)
//FILE8     DD DSN=&&T8,DISP=(OLD,DELETE),
//          UNIT=SYSDA,DCB=(RECFM=FB,LRECL=80,BLKSIZE=800)
//S7 EXEC PGM=CHANGE,TIME=(,2)
//STEPLIB  DD DSN=UKU.@AEC01.LOAD,UNIT=3330,
//            VOL=SER=IRCC&VOL.,DISP=SHR
//SYSPRINT DD SYSOUT=A
//MPSOUT DD DUMMY,DCB=BLKSIZE=133
//A       DD DSN=&&A,DISP=(OLD,DELETE),UNIT=SYSDA
//B       DD DSN=&&B,SPACE=(TRK,(10,1)),DISP=(NEW,PASS),UNIT=SYSDA,
//            DCB=(RECFM=FB,LRECL=133,BLKSIZE=1330)
//S8 EXEC PGM=B91,REGION=252K,TIME=(,3)
//STEPLIB  DD DSN=UKU.@AEC01.LOAD,UNIT=3330,
//            VOL=SER=IRCC&VOL.,DISP=SHR
//FT01F001 DD DSN=&&T1,DISP=(OLD,DELETE),UNIT=SYSDA,
//            DCB=(RECFM=FB,LRECL=133,BLKSIZE=1330)
//FT02F001 DD DSN=&&B,DISP=(OLD,DELETE),UNIT=SYSDA,
//            DCB=(RECFM=FB,LRECL=133,BLKSIZE=1330)
//FT03F001 DD DUMMY
//FT06F001 DD SYSOUT=A
//            PEND
//SM4   EXEC   PGM=OEHMOVE,TIME=(,2)
//STEPLIB  DD  DSN=SYS1.JOBLIB,DISP=SHR
//SYSPRINT   DD   SYSOUT=A
//DISK DD  UNIT=3330,VOL=SER=IRCC77,DISP=OLD     Change this card if volume 77 is unavailable.
//TAPE   DD  UNIT=TAPE9,VOL=SER=CFP01,DISP=OLD
//SYSUT1   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
//SYSIN   DD  *
 COPY PDS=UKU.@AEC01.LOAD,TODD=DISK,TO=3330=IRCC77,      X  Change this card if volume 77 is unavailable
            FROMDD=TAPE,FROM=TAPE9=(CFP01,1)
/*
//SLP   EXEC PGM=COMPILER,TIME=(,2)
//SCRATCH1   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
//SCRATCH2   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
//SCRATCH3   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
```

```
//SCRATCH4   DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
//STEPLIB    DD  DSN=SYS4.PROGLIB,DISP=SHR
//SYSMLCP    DD  UNIT=SYSDA,SPACE=(CYL,(1,1)),DISP=(,PASS),DSN=&&LCP
//SYSPRINT   DD  SYSOUT=A
//SYSIN      DD  *
           PROGRAM
           INITIALZ
           MOVE(XDATA,'MATRIX')
           MOVE(XPBNAME,'B9PROB')
           CONVERT('FILE','FILE7')
           SETUP ('BOUND','B')
           MOVE(XOBJ,'7000001')
           MOVE (XRHS,'R')
           PRIMAL
           SOLUTION
           MOVE (XOLDNAME,'B9PROB')
           REVISE ('FILE','FILE8')
           SETUP ('BOUND','B')
           PRIMAL
           SOLUTION
           EXIT
           PEND
/*
//ST1   EXEC  PROC=BWSCSW,VOL=77                    Change this card if volume 77 is unavailable.
//S5.FT05F001  DD  *

PLACE DATA FOR THE FIRST FARMER HERE.

//ST2   EXEC  PROC=BWSCSW,VOL=77                    Change this card if volume 77 is unavailable.
//S5.FT05F001  DD  *

PLACE DATA FOR THE SECOND FARMER HERE.

//ST3   EXEC  PROC=BWSCSW,VOL=77                    Change this card if volume 77 is unavailable.
//S5.FT05F001  DD  *

PLACE DATA FOR THE THIRD FARMER HERE.

/*
//
```

```
// 12000,CLASS=C
/*SETUP     UNIT=TAPE9,ID=(CFP01,L179,WRITE)
//S1 EXEC FTG1CL,PARM.FORT=BCD,TIME=(0,20)
//FORT.SYSIN DD *
      COMMON R%600<,IADJ,WORK%50<,BIG                                    MAIN   2
      DIMENSION HEAD%10<                                                 JES21  1
      REAL*8 IDENT                                                       MAIN   3
      IADJ#1                                                             MAIN   4
      CALL START%1<                                                      MAIN   5
      CALL INPUT%IDENT,HEAD,MAX<                                         JES21  2
      CALL RNTLND                                                        MAIN   7
      CALL HIRLAB                                                        MAIN   8
      CALL PREP%0<                                                       MAIN   9
      CALL CORNBN%1<                                                     MAIN  10
      CALL PREP%1<                                                       MAIN  11
      CALL CORNBN%2<                                                     MAIN  12
      CALL WHEAT                                                         MAIN  13
      CALL STORED                                                        MAIN  14
      CALL SILAGE                                                        MAIN  15
      CALL DOUBLE                                                        MAIN  16
      CALL CUSTOM                                                        MAIN  17
      CALL BCCOMB                                                        MAIN  18
      CALL RESERV                                                        MAIN  19
      CALL HARVES                                                        MAIN  20
      CALL ARTSIL                                                        JES    1
      CALL RHS1                                                          MAIN  21
      CALL FINISH%1<                                                     MAIN  22
       IADJ#2                                                            MAIN  23
      CALL START%2<                                                      MAIN  24
      CALL RNTLND                                                        MAIN  25
      CALL RHS1                                                          MAIN  26
      CALL FINISH%2<                                                     MAIN  27
      R%34<#R%34</1000.                                                  JES21  3
      WRITE%1,601< IDENT,%HEAD%I<,I#1,10<,MAX                            JES21  4
601   FORMAT %A7,10A4,I5<                                                JES21  5
      WRITE%1,602< %R%I<,I#1,MAX<                                        JES21  6
602   FORMAT%8F16.2<                                                     JES21  7
      STOP                                                               MAIN  28
      END                                                                MAIN  29
      SUBROUTINE INPUT%IDENT,HEAD,MAX<                                   JES21  1
      COMMON R,IADJ,WORK%50<,BIG                                         INPUT  2
      DIMENSION R%600<,PB%600<                                           INPUT  3
      DIMENSION PB1%136<,PB2%134<,PB3%134<,PB4%134<,PB5%27<              CHNG  10
      EQUIVALENCE %PB%1<,PB1%1<<, %PB%137<,PB2%1<<, %PB%271<,PB3%1<<,    CHNG  20
     $           %PB%405<,PB4%1<<, %PB%539<,PB5%1<<                      CHNG  30
      DIMENSION HEAD%10<                                                 INPUT  4
      REAL*8 IDENT                                                       CHNG  40
      DATA PB1   /          1.00,  500.00,    0.00,  100.00,    0.00,   JES24  1   1
     1     0.00,    0.00,    0.00,    0.00,    0.00,    0.00,    0.00,   JES24  2   6
     2     0.00,   20.00,   14.75,    0.00,    0.00,    0.00,    0.00,   JES24  3  13
     3     0.00,    0.00,    0.00,    0.00,    0.00,    0.00,    0.00,   JES24  4  20
     4     0.00,  600.00,   80.00,    0.00,   86.00,  100.00,   50.00,   JES24  5  27
     5    82.00,    0.00,    0.00,    0.00,    0.00,    0.00,    0.00,   JES24  6  34
     6     0.00,    0.00,    0.00,    0.00,  999.00,  999.00,  999.00,   JES24  7  41
     7     0.00,    1.10,    2.00,    0.00,    0.00,    2.00,    2.00,   JES24  8  48
     8     4.80,    4.80,    2.10,    5.00,   14.00,     .08,  300.00,   JES24  9  55
     9   300.00,   16.00,     .16,     .00,    1.00, 8000.00,    0.00,   JES24 10  62
     *                      4.00,     .80,  110.00,   24.00,   12.50,   JES24 11  69
     1    55.00,   11.00,    7.00,    8.00,  108.00,   19.00,   12.50,   JES24 12  74
     2    55.00,   11.00,    7.00,    8.00,  103.00,   18.00,   12.50,   JS524 13  81
```

Internal Cell Numt of each card

APPENDIX B

Note: The following is a complete listing of the program which places the model on tape. The listing contains the original Purdue University code which can be translated into easily readable FORTRAN code by using the following code conversion table:

Purdue Code	FORTRAN Code
#	=
%	(
<	)
@	'
&	+

```
     3    0.00,    1.00,    1.00,    0.00,    2.17,    2.17,    2.40,  JES24 74   490
     4    3.25,    3.25,    2.20,    4.50,    4.50,    2.75,    1.67,  JES24 75   497
     5    1.67,    5.00,    5.00,    3.00,    1.67,    1.67,    2.00,  JES24 76   504
     6    4.00,    0.00,    0.00,    0.00,    0.00,    2.80,    0.00,  JES24 77   511
     7   34.00,   12.00,    0.00,    5.00,   45.00,   40.00,29630.00,  JES24 78   518
     8   14.00,    4.24,    3.86,  100.00,    4.26,    2.68,   38.00,  JES24 79   525
     9    1.00,    2.68,    0.00,   20.00,   13.00,    6.50,   14.00/ JES24 80   532
      DATA PB5   /                  22.00,    3.00,    1.00,    0.00,  JES24 81   539
     1    0.00,    6.70,    0.00,    0.00,    1.16,    0.00,    0.00,  JES24 82   543
     2    0.00,  600.00,  575.00,                                      JES24 83   550
     *                              .24,     .12,  999.00,    0.00,  JES24 84   553
     1    0.00,  600.00,    0.00,   13.00,    0.00,   86.00,    0.00,  JES24 85   557
     299999.00,99999.00/                                              JES24 86   564
      MAX#565                                                         JES15  4
      BIG#999999.                                                     INPUT 91
      IB#1                                                            INPUT 92
      DO 1 I#1,MAX                                                    INPUT 93
    1 R%I<#BIG                                                        INPUT 94
      READ%5,300< IDENT,%HEAD%I<,I#1,10<,IBASE                        CHNG  50
300   FORMAT%A7,10A4,22X,I1<                                          JES4   3
      WRITE %6,301< IDENT,%HEAD%I<,I#1,10<,IBASE                      CHNG  60
301   FORMAT %@1@,A7,10A4,22X,I1<                                     CHNG  70
      IBASE#IBASE&1                                                   JES4   2
      IBASE1#2                                                        JES4   4
      IF%IBASE.LE.0.OR.IBASE.GT.3< IBASE#1                            JES4   5
      GO TO %1001,1002,1003<,IBASE                                    JES4   6
C     IOWA BASE                                                       JES4   7
 1002 READ%IBASE1,1004< %PB%I<,I#1,563<                               JES4   8
      GO TO 1001                                                      JES4   9
C     ILLINOIS BASE                                                   JES4  10
 1003 CONTINUE                                                        JES4  11
      READ%IBASE1,1004< %PB%I<,I#1,563<                               JES4  12
      READ%IBASE1,1004< %PB%I<,I#1,563<                               JES4  13
C     REGULAR PURDUE BASE                                             JES4  14
 1001 CONTINUE                                                        JES4  15
 1004 FORMAT%5E16.8<                                                  JES4  16
      CALL TRANS                                                      INPUT 97
    7 DO 18 I#1,11                                                    INPUT 98
      GO TO%8,9,10,11,12,13,14,15,16,81,82<,I                         INPUT 99
C     PLANTING TIME                                                   JES8   1
    8 K#345                                                           INPUT100
      I1#346                                                          INPUT101
      I2#351                                                          INPUT102
      GO TO 17                                                        INPUT103
C     NUMBER OF GOOD DAYS                                             JES8   2
   81 K#305                                                           INPUT104
      I1#306                                                          INPUT105
      I2#320                                                          INPUT106
      GO TO 17                                                        INPUT107
C     HOURS PER DAY                                                   JES8   3
   82 K#325                                                           INPUT108
      I1#326                                                          INPUT109
      I2#340                                                          INPUT110
      GO TO 17                                                        INPUT111
C     FULL TIME MEN                                                   JES8   4
    9 K#352                                                           INPUT112
      I1#353                                                          INPUT113
      I2#362                                                          INPUT114
      GO TO 17                                                        INPUT115
   10 I1#385                                                          INPUT116
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     3   55.00,   11.00,    7.00,    8.00,  107.00,   26.00,   12.00,  JES24 14   88
     4   55.00,   11.00,    7.00,    8.00,  105.00,   21.00,   12.00,  J5224 15   95
     5   55.00,   11.00,    7.00,    8.00,  100.00,   19.00,   12.00,  JES24 16  102
     6   55.00,   11.00,    7.00,    8.00,  102.00,   28.00,   12.00,  JES24 17  109
     7   55.00,   11.00,    7.00,    8.00,  100.00,   23.00,   12.00,  J5S24 18  116
     8   55.00,   11.00,    7.00,    8.00,   96.00,   20.00,   12.00,  JES24 19  123
     9   55.00,   11.00,    7.00,    8.00,    0.00,   30.00,   12.00/  JES24 20  130
  DATA PB2    /                   55.00,   11.00,    7.00,    8.00,             JES24 21  137
     1   95.00,   26.00,   12.00,   55.00,   11.00,    7.00,    8.00,  JES24 22  141
     2   91.00,   22.00,   12.00,   55.00,   11.00,    7.00,    8.00,  JES24 23  148
     3    0.00,   32.00,   11.50,   55.00,   11.00,    7.00,    8.00,  JES24 24  155
     4   89.00,   30.00,   11.50,   55.00,   11.00,    7.00,    8.00,  JES24 25  162
     5   85.00,   25.00,   11.50,   55.00,   11.00,    7.00,    8.00,  JES24 26  169
     6    0.00,   27.00,   10.50,   55.00,   11.00,    7.00,    8.00,  JES24 27  176
     7   80.00,   25.00,   10.50,   55.00,   11.00,    7.00,    8.00,  JES24 28  183
     8   76.00,   22.00,   10.50,   55.00,   11.00,    7.00,    8.00,  JES24 29  190
     9    0.00,   18.40,   10.00,   12.75,    5.00,   13.00,    0.00,  JES24 30  197
     *                              18.40,   10.00,   12.75,    5.00,  JES24 31  204
     1   13.00,    0.00,   18.40,   10.00,   12.75,    5.00,   13.00,  JES24 32  208
     2   39.00,   18.40,   10.00,   12.75,    5.00,   13.00,   40.00,  JES24 33  215
     3   18.40,   10.00,   12.75,    5.00,   13.00,   31.00,   18.40,  JES24 34  222
     4   10.00,   12.75,    5.00,   13.00,   38.00,   18.40,   10.00,  JES24 35  229
     5   12.75,    5.00,   13.00,   38.00,   18.40,   10.00,   12.75,  JES24 36  236
     6    5.00,   13.00,   30.00,   18.40,   10.00,   12.75,    5.00,  JES24 37  243
     7   13.00,   31.00,   18.40,   10.00,   12.75,    5.00,   13.00,  JES24 38  250
     8   36.00,   18.40,   10.00,   12.75,    5.00,   13.00,   27.00,  JES24 39  257
     9   18.40,   10.00,   12.75,    5.00,   13.00,    0.00,   18.40/  JES24 40  264
  DATA PB3    /                   10.00,   12.75,    5.00,   13.00,             JES24 41  271
     1   35.00,   18.40,   10.00,   12.75,    5.00,   13.00,   26.00,  JES24 42  275
     2   18.40,   10.00,   12.75,    5.00,   13.00,    0.00,   18.40,  JES24 43  282
     3   10.00,   12.75,    5.00,   13.00,   30.00,   18.40,   10.00,  JES24 44  289
     4   12.75,    5.00,   13.00,   23.00,   18.40,   10.00,   12.75,  JES24 45  296
     5    5.00,   13.00,    1.00,    4.50,    6.50,    2.10,    2.10,  JES24 46  303
     6    2.70,    2.70,    3.30,    3.30,    3.30,   16.60,    7.00,  JES24 47  310
     7   10.90,   10.20,    9.90,    5.00,    1.00,    1.00,    1.00,  JES24 48  317
     8    1.00,    1.00,    9.00,    9.00,   12.00,   12.00,   12.00,  JES24 49  324
     9   12.00,   12.00,   12.00,   12.00,   12.00,   10.00,   10.00,  JES24 50  331
     *                              10.00,   10.00,   10.00,    1.00,  JES24 51  338
     1    0.00,    0.00,    0.00,    1.00,    1.00,    1.00,    1.00,  JES24 52  342
     2    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,  JES24 53  349
     3    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,  JES24 54  356
     4    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,  JES24 55  363
     5    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,  JES24 56  370
     6    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,  JES24 57  377
     7    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,  JES24 58  384
     8    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,  JES24 59  391
     9    1.00,    1.00,    1.00,    1.00,    1.00,    1.00,    1.00/  JES24 60  398
  DATA PB4    /                   1.00,    1.00,    1.00,    1.00,             JES24 61  405
     1    0.00,    0.00,    1.00,    .67,     2.00,    2.00,    4.00,  JES24 62  409
     2    4.00,    1.00,    1.00,    1.00,    1.00,    0.00,    0.00,  JES24 63  416
     3    1.00,    1.00,    0.00,    0.00,    1.00,    0.00,    1.00,  JES24 64  423
     4    0.00,    1.00,    1.00,    0.00,    0.00,   32.73,    7.04,  JES24 65  430
     5    2.24,    6.70,    0.00,    0.00,    6.70,    5.02,    0.00,  JES24 66  437
     6    0.00,   25.02,    0.00,   28.00,    0.00,    7.04,    6.00,  JES24 67  444
     7    0.00,    0.00,   32.73,    0.00,    2.24,    6.70,    0.00,  JES24 68  451
     8    0.00,    6.70,    5.02,    0.00,    0.00,   12.51,    0.00,  JES24 69  458
     9    5.67,    0.00,    1.33,    1.02,    1.08,    1.02,    0.00,  JES24 70  465
     *                              0.00,    1.10,    1.16,    0.00,  JES24 71  472
     1    0.00,    1.02,    0.00,    1.04,    0.00,    1.02,    1.20,  JES24 72  476
     2    0.00,    0.00,    0.00,    1.00,    2.00,    0.00,    0.00,  JES24 73  483
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      I2#389                                                          INPUT117
      GO TO 17                                                        INPUT118
C     PART TIME MEN                                                   JES8   5
   11 K#363                                                           INPUT119
      I1#364                                                          INPUT120
      I2#373                                                          INPUT121
      GO TO 17                                                        INPUT122
   12 I1#390                                                          INPUT123
      I2#394                                                          INPUT124
      GO TO 17                                                        INPUT125
C     TRACTORS AVAILABLE                                              JES8   6
   13 K#374                                                           INPUT126
      I1#375                                                          INPUT127
      I2#384                                                          INPUT128
      GO TO 17                                                        INPUT129
   14 I1#395                                                          INPUT130
      I2#399                                                          INPUT131
      GO TO 17                                                        INPUT132
C     CORN HARVEST TIME                                               JES8   7
   15 I1#322                                                          INPUT133
      I2#324                                                          INPUT134
      K#341                                                           INPUT135
      GO TO 17                                                        INPUT136
C     FALL LAND PREPARATION TIME                                      JES8   8
   16 I1#401                                                          INPUT137
      I2#405                                                          INPUT138
      K#400                                                           INPUT139
C     IF NO MULTIPLIERS, USE PURDUE BASE MULTIPLIERS                  JES8   9
   17 IF%R%K<.EQ.BIG< R%K<#PB%K<                                      INPUT140
      DO 18 L#I1,I2                                                   INPUT141
C     IF NO INPUT DATA, USE PURDUE BASE DATA * MULTIPLIER             JES8  10
      IF%R%L<.EQ.BIG< R%L<#PB%L<*R%K<                                 INPUT142
   18 CONTINUE                                                        INPUT143
C     GO TO 22 IF FIRST OPERATIONS CELL NOT USED                      JES23  1
      IF %R%417<.EQ.BIG< GO TO 22                                     JES    1
      DO 19 L#418,484                                                 INPUT145
C     ANY DC BEANS EQUIPMENT FILLED IN                                JES8  12
C     SET CELLS # 0 IF NO DATA FILLED IN                              JES8  13
   19 IF%R%L<.EQ.BIG< R%L<#0.                                         INPUT146
      DO 21 L#541,549                                                 INPUT148
C     IF NO DATA, DC CELLS # 0.                                       JES8  14
   21 IF%R%L<.EQ.BIG< R%L<#0.                                         INPUT149
C     GO TO 26 IF NO CORN YIELD MULTIPLIER                            JES8  15
   22 IF%R%528<.EQ.BIG< GO TO 26                                      INPUT150
      J#64                                                            INPUT151
      DO 25 I#1,18                                                    INPUT152
      J#J&7                                                           INPUT153
C     IF NO YIELD SPECIFIED, USE FARMER MULTIPLIER AND PURDUE YIELD   JES8  16
      IF %R%J<.EQ.BIG< R%J<#PB%J<*%R%528</PB%528<<                    INPUT154
   25 CONTINUE                                                        INPUT155
   26 DO 27 I#2,6                                                     INPUT156
      K#71&I                                                          INPUT157
C     IF NO SEED COST IN FIRST PERIOD, CHECK FERTILIZER COST, ETC.    JES8  17
      IF %R%K<.EQ.BIG< GO TO 27                                       INPUT158
      J#K                                                             INPUT159
      DO 33 L#1,17                                                    INPUT160
      J#J&7                                                           INPUT161
C      IF NO COST IN OTHER PERIODS, USE FIRST PERIOD COSTS            JES8  18
      IF %R%J<.EQ.BIG< R%J<#R%K<                                      INPUT162
   33 CONTINUE                                                        INPUT163
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 27   CONTINUE                                                                INPUT164
C     GO TO 30 IF NO SOYBEAN YIELD MULTIPLIER                                 JES8  19
      IF %R%531<.EQ.BIG< GO TO 30                                             INPUT165
      J#191                                                                   INPUT166
      DO 29 I#1,18                                                            INPUT167
      J#J&6                                                                   INPUT168
C     IF NO YIELD SPECIFIED, USE FARMER MULTIPLIER AND PURDUE YIELD           JES8  20
      IF %R%J<.EQ.BIG< R%J<#PB%J<*%R%531</PB%531<<                            INPUT169
 29   CONTINUE                                                                INPUT170
 30   DO 31 I#1,4                                                             INPUT171
      K#197&I                                                                 INPUT172
C       IF NO SEED COST IN FIRST PERIOD, CHECK FERTILIZER COST, ETC.          JES8  21
      IF %R%K<.EQ.BIG< GO TO 31                                               INPUT173
      J#K                                                                     INPUT174
      DO 34 L#1,17                                                            INPUT175
      J#J&6                                                                   INPUT176
C       IF NO COST IN OTHER PERIODS, USE FIRST PERIOD COSTS                   JES8  22
      IF %R%J<.EQ.BIG< R%J<#R%K<                                              INPUT177
 34   CONTINUE                                                                INPUT178
 31   CONTINUE                                                                INPUT179
 37   IF %R%494<.EQ.0..AND.R%497<.EQ.0.< GO TO 38                             INPUT187
      GO TO 39                                                                INPUT188
 38   R%494<#R%495<                                                           INPUT189
      R%497<#R%498<                                                           INPUT190
 39   IF %R%500<.EQ.0..AND.R%505<.EQ.0.< GO TO 40                             INPUT191
      GO TO 41                                                                INPUT192
 40   R%500<#R%501<                                                           INPUT193
      R%505<#R%506<                                                           INPUT194
 41   IF %R%489<.GT.0.< GO TO 42                                              INPUT195
      IF %R%495<.EQ.0..AND.R%498<.EQ.0.< GO TO 42                             INPUT196
      R%494<#R%495<                                                           INPUT197
      R%497<#R%498<                                                           INPUT198
 42   IF %R%490<.GT.0.< GO TO 43                                              INPUT199
      IF %R%501<.EQ.0..AND.R%506<.EQ.0.< GO TO 43                             INPUT200
      R%500<#R%501<                                                           INPUT201
      R%505<#R%506<                                                           INPUT202
 43   DO 23 I#1,MAX                                                           INPUT203
   23 IF%R%I<.EQ.BIG< R%I<#PB%I<                                             INPUT204
      AVG#0.                                                                  INPUT205
      CNT#0.                                                                  INPUT206
      DO 99 I#522,523                                                         INPUT207
C     AVERAGE WHEAT YIELD                                                     JES8  23
      AVG#AVG&R%I<                                                            INPUT208
      IF %R%I<.GT.0.< CNT#CNT&1.                                              INPUT209
 99   CONTINUE                                                                INPUT210
      IF %CNT.GT.0.< R%534<#AVG/CNT                                           INPUT211
C     FARM STORAGE IN BUSHELS                                                 JES8  24
      IF %R%34<.LT.1000.< GO TO 604                                           JES    2
      WRITE%6,603< R%34<                                                      JES    3
 603  FORMAT%@0 ** NOTE **@/@ THE CONTENTS OF CELL 30 %@,F9.2,@< IMPLY I      JES    4
     1N EXCESS OF ONE MILLION BUSHELS OF DRIED CORN AND SOYBEAN STORAGE       JES    5
     2CAPACITY.@/@ THEREFORE STORAGE CAPACITY WILL BE SET EQUAL TO CONTE      JES    6
     3NTS OF CELL 30 INSTEAD OF 1000 TIMES CELL 30@<                         JES    7
      RETURN                                                                  JES    8
 604  CONTINUE                                                                JES    9
      R%34<#R%34<*1000.                                                       INPUT216
      RETURN                                                                  INPUT217
      END                                                                     INPUT218
      SUBROUTINE TRANS                                                        TRANS  1
      COMMON R,IADJ,WORK%50<,BIG                                              TRANS  2
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      IBEG#85                                                    TRANS 62
      GO TO 115                                                  TRANS 63
  111 J#46                                                       TRANS 64
      IBEG#105                                                   TRANS 65
      GO TO 115                                                  TRANS 66
  112 J#47                                                       TRANS 67
      IBEG#125                                                   TRANS 68
      GO TO 115                                                  TRANS 69
  113 J#48                                                       TRANS 70
      IBEG#145                                                   TRANS 71
      GO TO 115                                                  TRANS 72
  114 J#49                                                       TRANS 73
      IBEG#165                                                   TRANS 74
  115 DO 116 ILP#1,3                                             TRANS 75
      J#J&7                                                      TRANS 76
      K#J                                                        TRANS 77
      IBEG#IBEG&6                                                TRANS 78
      IEND#IBEG&5                                                TRANS 79
      DO 1160 I#IBEG,IEND                                        TRANS 80
      K#K&21                                                     TRANS 81
      R%K<#RB%I<                                                 TRANS 82
 1160  CONTINUE                                                  TRANS 83
  116 CONTINUE                                                   TRANS 84
  107 CONTINUE                                                   TRANS 85
      R%531<#RB%200<                                             TRANS 86
      DO 117 LP#1,6                                              TRANS 87
      GO TO %118,119,120,121,122,123<,LP                         TRANS 88
  118 J#173                                                      TRANS 89
      IBEG#195                                                   TRANS 90
      GO TO 124                                                  TRANS 91
  119 J#178                                                      TRANS 92
      IBEG#215                                                   TRANS 93
      GO TO 124                                                  TRANS 94
  120 J#175                                                      TRANS 95
      IBEG#235                                                   TRANS 96
      GO TO 124                                                  TRANS 97
  121 J#174                                                      TRANS 98
      IBEG#255                                                   TRANS 99
      GO TO 124                                                  TRANS100
  122 J#176                                                      TRANS101
      IBEG#275                                                   TRANS102
      GO TO 124                                                  TRANS103
  123 J#177                                                      TRANS104
      IBEG#295                                                   TRANS105
  124 DO 125 ILP#1,3                                             TRANS106
      J#J&6                                                      TRANS107
      K#J                                                        TRANS108
      IBEG#IBEG&6                                                TRANS109
      IEND#IBEG&5                                                TRANS110
      DO 126 I#IBEG,IEND                                         TRANS111
      K#K&18                                                     TRANS112
      R%K<#RB%I<                                                 TRANS113
  126 CONTINUE                                                   TRANS114
  125 CONTINUE                                                   TRANS115
  117 CONTINUE                                                   TRANS116
      R%563<#RB%319<                                             TRANS117
      R%551<#RB%320<                                             TRANS118
      R%522<#RB%321<                                             TRANS119
      R%523<#RB%322<                                             TRANS120
      R%519<#RB%323<                                             TRANS121
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      DIMENSION RB%657<,DATA%10<,R%600<                              TRANS  3
      REAL*8 BLK /@         @/,DD%10<,IDENT                          CHNG  10
      CALL REREAD                                                    CHNG  20
      MAX#657                                                        TRANS  4
      DO 99 I#1,MAX                                                  TRANS  5
 99   RB%I<#BIG                                                      TRANS  6
100   READ %5,400,END#105< IDENT,ID,%DD%I<,I#1,10<                   CHNG  30
400   FORMAT%A7,I3,10A6<                                             CHNG  50
      WRITE %6,97< IDENT,ID,%DD%I<,I#1,10<                           CHNG  60
 97   FORMAT%@ @,A7,I3,10A6<                                         CHNG  70
      READ %99,98< %DATA%I<,I#1,10<                                  CHNG  80
 98   FORMAT %10X,10F6.0<                                            CHNG  90
 101  IF%ID.GT.MAX< GO TO 104                                        *****  4
      DO 102 I#1,10                                                  *****  5
      IF %DD%I< .NE.BLK< RB%ID<#DATA%I<                              CHNG 100
102   ID#ID&1                                                        CHNG 110
      GO TO 100                                                      *****  12
 104  WRITE%6,500< IDENT,ID,%DATA%I<,I#1,10<                         *****  13
 500  FORMAT%@ BAD DATA ID CARD IS @,A7,I3,10F8.3<                   *****  14
      GO TO 100                                                      *****  15
 105  R%28<#RB%10<                                                   *****  16
      R%29<#RB%11<                                                   TRANS 23
      R%561<#RB%12<                                                  TRANS 24
      R%562<#RB%13<                                                  TRANS 25
      R%32<#RB%14<                                                   TRANS 26
      R%33<#RB%15<                                                   TRANS 27
      R%30<#RB%16<                                                   TRANS 28
      R%31<#RB%17<                                                   TRANS 29
      DO 106 I#18,21                                                 TRANS 30
      J#I-16                                                         TRANS 31
      R%J<#RB%I<                                                     TRANS 32
 106  CONTINUE                                                       TRANS 33
      R%550<#RB%22<                                                  TRANS 34
      R%34<#RB%30<                                                   TRANS 35
      R%59<#RB%31<                                                   TRANS 36
      R%560<#RB%32<                                                  TRANS 37
      R%61<#RB%33<                                                   TRANS 38
      R%62<#RB%34<                                                   TRANS 39
      R%63<#RB%35<                                                   TRANS 40
      R%60<#RB%36<                                                   TRANS 41
      R%554<#RB%37<                                                  TRANS 42
      R%64<#RB%38<                                                   TRANS 43
      R%553<#RB%39<                                                  TRANS 44
      R%57<#RB%40<                                                   TRANS 45
      R%53<#RB%41<                                                   TRANS 46
      R%54<#RB%42<                                                   TRANS 47
      R%58<#RB%43<                                                   TRANS 48
      R%55<#RB%44<                                                   TRANS 49
      R%56<#RB%45<                                                   TRANS 50
      R%516<#RB%46<                                                  TRANS 51
      R%528<#RB%50<                                                  TRANS 52
      DO 107 LP#1,7                                                  TRANS 53
      GO TO %108,109,110,111,112,113,114<,LP                         TRANS 54
 108  J#43                                                           TRANS 55
      IBEG#45                                                        TRANS 56
      GO TO 115                                                      TRANS 57
 109  J#44                                                           TRANS 58
      IBEG#65                                                        TRANS 59
      GO TO 115                                                      TRANS 60
 110  J#45                                                           TRANS 61
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      DO 147 I#412,414                                          JES14  1
      J#J&1                                                     TRANS184
      R%J<#RB%I<                                                TRANS185
147   CONTINUE                                                  TRANS186
      DO 148 LP#1,6                                             TRANS187
      GO TO%149,150,151,152,153,154<,LP                         TRANS188
149   J#315                                                     TRANS189
      IBEG#417                                                  TRANS190
      IEND#421                                                  TRANS191
      GO TO 155                                                 TRANS192
150   J#335                                                     TRANS193
      IBEG#422                                                  TRANS194
      IEND#426                                                  TRANS195
      GO TO 155                                                 TRANS196
151   J#400                                                     TRANS197
      IBEG#430                                                  TRANS198
      IEND#434                                                  TRANS199
      GO TO 155                                                 TRANS200
152   J#384                                                     TRANS201
      IBEG#435                                                  TRANS202
      IEND#439                                                  TRANS203
      GO TO 155                                                 TRANS204
153   J#389                                                     TRANS205
      IBEG#440                                                  TRANS206
      IEND#444                                                  TRANS207
      GO TO 155                                                 TRANS208
154   J#394                                                     TRANS209
      IBEG#445                                                  TRANS210
      IEND#449                                                  TRANS211
155   DO 156 I#IBEG,IEND                                        TRANS212
      J#J&1                                                     TRANS213
      R%J<#RB%I<                                                TRANS214
156   CONTINUE                                                  TRANS215
148   CONTINUE                                                  TRANS216
      R%341<#RB%415<                                            TRANS217
      R%400<#RB%416<                                            TRANS218
      R%411<#RB%450<                                            TRANS219
      R%412<#RB%451<                                            TRANS220
      R%558<#RB%452<                                            TRANS221
      J#321                                                     TRANS222
      DO 1480 I#427,429                                         TRANS223
      J#J&1                                                     TRANS224
      R%J<#RB%I<                                                TRANS225
1480  CONTINUE                                                  TRANS226
      J#485                                                     TRANS227
      DO 157 I#453,455                                          TRANS228
      J#J&1                                                     TRANS229
      R%J<#RB%I<                                                TRANS230
157   CONTINUE                                                  TRANS231
      J#66                                                      TRANS232
      DO 158 I#456,459                                          TRANS233
      J#J&1                                                     TRANS234
      R%J<#RB%I<                                                TRANS235
158   CONTINUE                                                  TRANS236
      DO 159 LP#1,4                                             TRANS237
      GO TO %160,161,162,163<,LP                                TRANS238
160   I#496                                                     TRANS239
      IBEG#417                                                  TRANS240
      IEND#426                                                  TRANS241
      GO TO 164                                                 TRANS242
```

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      R%518<#RB%324<                                                    TRANS122
      R%520<#RB%325<                                                    TRANS123
      R%521<#RB%326<                                                    TRANS124
      R%552<#RB%327<                                                    TRANS125
      R%535<#RB%328<                                                    TRANS126
      R%536<#RB%329<                                                    TRANS127
      R%538<#RB%330<                                                    TRANS128
      R%537<#RB%331<                                                    TRANS129
      R%539<#RB%332<                                                    TRANS130
      R%540<#RB%333<                                                    TRANS131
      R%557<#RB%334<                                                    TRANS132
      J#7                                                               TRANS133
      DO 134 I#335,342                                                  TRANS134
      J#J&1                                                             TRANS135
      R%J<#RB%I<                                                        TRANS137
  134 CONTINUE                                                          TRANS138
      R%305<#RB%350<                                                    TRANS139
      R%325<#RB%351<                                                    TRANS140
      R%345<#RB%352<                                                    TRANS141
      R%352<#RB%353<                                                    TRANS142
      R%363<#RB%354<                                                    TRANS143
      R%374<#RB%355<                                                    TRANS144
      DO 135 LP#1,2                                                     TRANS145
      GO TO %136,137<,LP                                                TRANS146
  136 J#305                                                             TRANS147
      IBEG#356                                                          TRANS148
      IEND#365                                                          TRANS149
      GO TO 138                                                         TRANS150
  137 J#325                                                             TRANS151
      IBEG#366                                                          TRANS152
      IEND#375                                                          TRANS153
  138 DO 139 I#IBEG,IEND                                                TRANS154
      J#J&1                                                             TRANS155
      R%J<#RB%I<                                                        TRANS156
  139 CONTINUE                                                          TRANS157
  135 CONTINUE                                                          TRANS158
      J#345                                                             TRANS159
      DO 140I#376,381                                                   TRANS160
      J#J&1                                                             TRANS161
      R%J<#RB%I<                                                        TRANS162
  140 CONTINUE                                                          TRANS163
      DO 141 LP#1,3                                                     TRANS164
      GO TO %142,143,144<,LP                                            TRANS165
  142 J#352                                                             TRANS166
      IBEG#382                                                          TRANS167
      IEND#391                                                          TRANS168
      GO TO 145                                                         TRANS169
  143 J#363                                                             TRANS170
      IBEG#392                                                          TRANS171
      IEND#401                                                          TRANS172
      GO TO 145                                                         TRANS173
  144 J#374                                                             TRANS174
      IBEG#402                                                          TRANS175
      IEND#411                                                          TRANS176
  145 DO 146 I#IBEG,IEND                                                TRANS177
      J#J&1                                                             TRANS178
      R%J<#RB%I<                                                        TRANS179
  146 CONTINUE                                                          TRANS180
  141 CONTINUE                                                          TRANS181
      J#405                                                             TRANS182
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      I#497                                                          TRANS243
      IBEG#435                                                       TRANS244
      IEND#444                                                       TRANS245
      GO TO 164                                                      TRANS246
  162 I#498                                                          TRANS247
      IBEG#453                                                       TRANS248
      IEND#462                                                       TRANS249
      GO TO 164                                                      TRANS250
  163 I#499                                                          TRANS251
      IBEG#467                                                       TRANS252
      IEND#476                                                       TRANS253
  164 DO 165 J#IBEG,IEND                                             TRANS254
      I#I&4                                                          TRANS255
      R%J<#RB%I<                                                     TRANS256
  165 CONTINUE                                                       TRANS257
  159 CONTINUE                                                       TRANS258
      R%413<#RB%540<                                                 TRANS259
      R%414<#RB%541<                                                 TRANS260
      R%415<#RB%550<                                                 TRANS261
      R%416<#RB%551<                                                 TRANS262
      DO 166 LP#1,4                                                  TRANS263
      GO TO%167,168,169,170<,LP                                      TRANS264
  167 I#538                                                          TRANS265
      IBEG#427                                                       TRANS266
      GO TO 171                                                      TRANS267
  168 I#539                                                          TRANS268
      IBEG#445                                                       TRANS269
      GO TO 171                                                      TRANS270
  169 I#540                                                          TRANS271
      IBEG#463                                                       TRANS272
      GO TO 171                                                      TRANS273
  170 I#541                                                          TRANS274
      IBEG#477                                                       TRANS275
  171 IEND#IBEG&1                                                    TRANS276
      DO 172 J#IBEG,IEND                                             TRANS277
      I#I&4                                                          TRANS278
      R%J<#RB%I<                                                     TRANS279
  172 CONTINUE                                                       TRANS280
  166 CONTINUE                                                       TRANS281
      DO 173 LP#1,4                                                  TRANS282
      GO TO %174,175,176,177<,LP                                     TRANS283
  174 I#548                                                          TRANS284
      IBEG#429                                                       TRANS285
      GO TO 178                                                      TRANS286
  175 I#549                                                          TRANS287
      IBEG#447                                                       TRANS288
      GO TO 178                                                      TRANS289
  176 I#550                                                          TRANS290
      IBEG#465                                                       TRANS291
      GO TO 178                                                      TRANS292
  177 I#551                                                          TRANS293
      IBEG#479                                                       TRANS294
  178 IEND#IBEG&1                                                    TRANS295
      DO 179 J#IBEG,IEND                                             TRANS296
      I#I&4                                                          TRANS297
      R%J<#RB%I<                                                     TRANS298
  179 CONTINUE                                                       TRANS299
  173 CONTINUE                                                       TRANS300
      DO 180 LP#1,3                                                  TRANS301
      GO TO %181,182,183<,LP                                         TRANS302
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181   I#557                                                    TRANS303
      IBEG#431                                                 TRANS304
      GO TO 184                                                TRANS305
182   I#558                                                    TRANS306
      IBEG#449                                                 TRANS307
      GO TO 184                                                TRANS308
183   I#559                                                    TRANS309
      IBEG#481                                                 TRANS310
184   IEND#IBEG&3                                              TRANS311
      DO 185 J#IBEG,IEND                                       TRANS312
      I#I&3                                                    TRANS313
      R%J<#RB%I<                                               TRANS314
185   CONTINUE                                                 TRANS315
180   CONTINUE                                                 TRANS316
      DO 186 LP#1,3                                            TRANS317
      GO TO %187,188,189<,LP                                   TRANS318
187   I#569                                                    TRANS319
      IBEG#541                                                 TRANS320
      GO TO 190                                                TRANS321
188   I#570                                                    TRANS322
      IBEG#544                                                 TRANS323
      GO TO 190                                                TRANS324
189   I#571                                                    TRANS325
      IBEG#547                                                 TRANS326
190   IEND#IBEG&2                                              TRANS327
      DO 191 J#IBEG,IEND                                       TRANS328
      I#I&3                                                    TRANS329
      R%J<#RB%I<                                               TRANS330
191   CONTINUE                                                 TRANS331
186   CONTINUE                                                 TRANS332
      R%489<#RB%610<                                           TRANS333
      R%490<#RB%613<                                           TRANS334
      R%491<#RB%616<                                           TRANS335
      R%492<#RB%621<                                           TRANS336
      R%493<#RB%624<                                           TRANS337
      R%494<#RB%611<                                           TRANS338
      R%495<#RB%617<                                           TRANS339
      R%497<#RB%612<                                           TRANS340
      R%498<#RB%618<                                           TRANS341
      R%500<#RB%614<                                           TRANS342
      R%501<#RB%619<                                           TRANS343
      R%502<#RB%622<                                           TRANS344
      R%505<#RB%615<                                           TRANS345
      R%506<#RB%620<                                           TRANS346
      R%507<#RB%623<                                           TRANS347
      R%510<#RB%625<                                           TRANS348
      R%496<#RB%626<                                           TRANS349
      R%499<#RB%627<                                           TRANS350
      R%503<#RB%628<                                           TRANS351
      R%504<#RB%630<                                           TRANS352
      R%508<#RB%629<                                           TRANS353
      R%509<#RB%631<                                           TRANS354
      R%511<#RB%632<                                           TRANS355
      R%47<#RB%640<                                            TRANS356
      R%48<#RB%641<                                            TRANS357
      R%555<#RB%642<                                           TRANS358
      R%556<#RB%643<                                           TRANS359
      R%45<#RB%644<                                            TRANS360
      R%559<#RB%645<                                           TRANS361
      R%46<#RB%646<                                            TRANS362
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      R%49<#RB%647<                                                    TRANS363
      R%50<#RB%648<                                                    TRANS364
      R%524<#RB%650<                                                   TRANS365
      R%525<#RB%654<                                                   TRANS366
      DO 192 LP#1,2                                                    TRANS367
      GO TO %193,194<,LP                                               TRANS368
193   J#523                                                            TRANS369
      IBEG#651                                                         TRANS370
      GO TO 195                                                        TRANS371
194   J#524                                                            TRANS372
      IBEG#655                                                         TRANS373
195   IEND#IBEG&2                                                      TRANS374
      DO 196 I#IBEG,IEND                                               TRANS375
      J#J&3                                                            TRANS376
      R%J<#RB%I<                                                       TRANS377
196   CONTINUE                                                         TRANS378
192   CONTINUE                                                         TRANS379
      R%564<#RB%49<                                                    JES15  1
      R%565<#RB%199<                                                   JES15  2
      RETURN                                                           TRANS380
      END                                                              TRANS381
      SUBROUTINE RNTLND                                                RNTLN  1
      COMMONR,IADJ,WORK%50<,BIG                                        RNTLN  2
      COMMON/BND/BNDS%70,3<,IBD2,IRHSE                                 CHNG  10
      DIMENSIONR%600<                                                  RNTLN  3
      IBD2=0                                                           CHNG  20
      IR#7000001                                                       RNTLN  4
      IROW#7000002                                                     RNTLN  5
      ICOL#8000002                                                     RNTLN  6
      A#0.                                                             RNTLN  7
C     PRESENT CONTINUE ---- OPTIMUM, GO TO 1                           JES8   1
      IF%IADJ.EQ.2< GO TO 1                                            RNTLN  8
      B#0.                                                             RNTLN  9
      CALL BNDADJ%ICOL,A,B<                                            RNTLN 10
      A#-R%33<                                                         RNTLN 11
C     CJ FOR RENTING OUT                                               JES8   2
      CALLAIJ%IR,ICOL,A<                                               RNTLN 12
      A#1.                                                             RNTLN 13
      CALLAIJ%IROW,ICOL,A<                                             RNTLN 14
      GOTO2                                                            RNTLN 15
C     COME HERE ONLY IF OPTIMUM PLAN                                   JES8   4
    1 A#R%32<                                                          RNTLN 16
      B#0.                                                             RNTLN 17
C     BOUND RENT OUT                                                   JES8   5
      CALL BNDD%ICOL,A,B<                                              RNTLN 18
      A#R%30<                                                          RNTLN 19
      ICOL#ICOL&1                                                      RNTLN 20
C     BOUND RENT IN                                                    JES8   6
      CALL BNDD%ICOL,A,B<                                              RNTLN 21
      IF%IADJ.EQ.2<RETURN                                              RNTLN 22
    2 CONTINUE                                                         RNTLN 23
      ICOL#ICOL&1                                                      RNTLN 24
C     SUM OF CROP ACRES - OWN-RENT                                     JES8   7
      B#R%2<&R%3<&R%4<&R%5<-%R%28<&R%561<<                             RNTLN 25
      IF%B.LT.0.< B#0.                                                 RNTLN 26
      IF%B.GT.R%30<< B#R%30<                                           RNTLN 27
      A#B                                                              RNTLN 28
C     SET UPPER AND LOWER BOUND EQUAL %PRESENT PLAN<                   JES8   8
      CALL BNDADJ%ICOL,A,B<                                            RNTLN 29
      A#R%31<                                                          RNTLN 30
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C       CJ FOR RENTING IN                                                  JES8    9
        IR#7000001                                                         JES5    1
        CALLAIJ%IR,ICOL,A<                                                 RNTLN  31
        A#-1.                                                              RNTLN  32
        CALL AIJ%IROW,ICOL,A<                                              RNTLN  33
        RETURN                                                             RNTLN  34
        END                                                                RNTLN  35
        SUBROUTINE HIRLAB                                                  HIRLA   1
        COMMONR,IADJ,WORK%50<,BIG                                          HIRLA   2
        DIMENSIONR%600<                                                    HIRLA   3
        IF%IADJ.EQ.2<RETURN                                                HIRLA   4
        ICOL#8000003                                                       HIRLA   5
        B#0.                                                               HIRLA   6
        IROW#7000005                                                       HIRLA   7
        DO 3 I#1,13                                                        HIRLA   8
        ICOL#ICOL&1                                                        HIRLA   9
        I1#307&I                                                           HIRLA  10
        I2#327&I                                                           HIRLA  11
        I3#365&I                                                           HIRLA  12
        IF%I-8< 10,10,5                                                    HIRLA  13
    5   I3#381&I                                                           HIRLA  14
   10   A#R%I1<*R%I2<*R%I3<                                                HIRLA  15
        IF%I-13< 20,1,20                                                   HIRLA  16
    1   DO 2 J#1,2                                                         HIRLA  17
    2   A#A&R%305&J<*R%325&J<*R%363&J<                                     HIRLA  18
   20   CALL BNDD%ICOL,A,B<                                                HIRLA  19
        IROW#IROW&1                                                        HIRLA  20
        IR#7000001                                                         HIRLA  21
        A#R%69<                                                            HIRLA  22
        CALLAIJ%IR,ICOL,A<                                                 HIRLA  23
        A#-R%70<                                                           HIRLA  24
        CALLAIJ%IROW,ICOL,A<                                               HIRLA  25
    3   CONTINUE                                                           HIRLA  26
    4   RETURN                                                             HIRLA  27
        END                                                                HIRLA  28
        SUBROUTINE PREP%IBEAN<                                             PREP    1
        COMMONR,IADJ,WORK%50<,BIG                                          PREP    2
        DIMENSIONR%600<                                                    PREP    3
        L#4                                                                PREP    4
        IF%IADJ.EQ.2<RETURN                                                PREP    5
        IC#8000016&IBEAN*46                                                PREP    6
        WORK%9<#0.                                                         PREP    7
        S3#0.                                                              PREP    8
        S#0                                                                PREP    9
        ISOY#0                                                             PREP   10
        DO2I#1,6                                                           PREP   11
C FIGURE HOJRS REQUIRED PER ACRE                                           PREP   12
C                                                                          PREP   13
        C#R%416&I<*R%434&I&IBEAN*18<                                       PREP   14
        WORK%I<#0.                                                         PREP   15
        IF%C<2,2,1                                                         PREP   16
    1   WORK%I<#1.0/C                                                      PREP   17
        S3#S3&1./R%434&I&IBEAN*18<                                         PREP   18
        S#S&WORK%I<                                                        PREP   19
    2    CONTINUE                                                          PREP   20
        WORK%7<#0.                                                         PREP   21
        WORK%8<#0.                                                         PREP   22
C                                                                          PREP   23
C       WORK%1-5< HOURS/ACRE/IMPLEMENT                                     PREP   24
C       WORK%6< TOTAL RATE FOR ALL IMPLEMENTS                              PREP   25
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      CALL AIJ%IR,IC,A<                                                 PREP   84
      IR#IR&1                                                           PREP   85
      CALL AIJ%IR,IC,A<                                                 PREP   86
      GO TO 11                                                          PREP   87
13    IR#7000106                                                        PREP   88
      A#1.                                                              PREP   89
      CALL AIJ%IR,IC,A<                                                 PREP   90
      GO TO 11                                                          PREP   91
14    IF %I.GT.3< GO TO 11                                              PREP   92
      IF %I.EQ.3< GO TO 15                                              PREP   93
      IR#7000105                                                        PREP   94
      A#1.                                                              PREP   95
      CALL AIJ%IR,IC,A<                                                 PREP   96
      IR#IR&1                                                           PREP   97
      CALL AIJ%IR,IC,A<                                                 PREP   98
      GO TO 11                                                          PREP   99
15    IR#7000106                                                        PREP  100
      A#1.                                                              PREP  101
      CALL AIJ%IR,IC,A<                                                 PREP  102
  11  CONTINUE                                                          PREP  103
      RETURN                                                            PREP  104
 100  L#5                                                               PREP  105
      ISOY#1                                                            PREP  106
      L2#11                                                             PREP  107
      ICOL#8000065                                                      PREP  108
      GOTO8                                                             PREP  109
      END                                                               PREP  110
      SUBROUTINE CORNBN%IBEAN<                                          CORNB   1
      COMMONR,IADJ,WORK%50<,BIG                                         CORNB   2
      DIMENSIONR%600<                                                   CORNB   3
      IF%IADJ.EQ.2<RETURN                                               CORNB   4
      ICNT#0                                                            CORNB   5
      CALLSETUP%IBEAN<                                                  CORNB   6
      DO1000IWET#1,2                                                    CORNB   7
      DO1000J#1,18                                                      CORNB   8
      K#71&%J-1<*%8-IBEAN<&%IBEAN-1<*126                                CORNB   9
       K1#K-3&IBEAN*4                                                   CORNB  10
      JF#560-%2-IBEAN<*501                                              CORNB  11
      IF %R%K1<.LE.R%JF<-4.< R%K1<#R%JF<&R%K1<                          CORNB  12
      IF %R%K1<.LE.R%JF<< R%K1<#R%JF<                                   CORNB  13
1234  FORMAT%2X,2%I4,F16.4<<                                            CORNB  14
      IF%R%K<<1,1,2                                                     CORNB  15
    1 A#BIG                                                             CORNB  16
      GOTO6                                                             CORNB  17
    2 IF%R%525&IBEAN*3<.LE.0.< GO TO 1                                  CORNB  18
      A#0.                                                              CORNB  19
      I1#K&3-IBEAN                                                      CORNB  20
      I2#I1&5-IBEAN                                                     CORNB  21
      ICNT#ICNT&1                                                       CORNB  22
      DO3I#I1,I2                                                        CORNB  23
    3 A#A&R%I<                                                          CORNB  24
32    B#%R%K-3&IBEAN*4<-R%JF<<*R%K</10.                                 CORNB  25
   33 GOTO %5,4<,IWET                                                   CORNB  26
    4 A#A&B*R%60&%IBEAN-1<*494<                                         CORNB  27
   50 IF%R%60&IBEAN<< 66.66,6                                           CORNB  28
   66 IF%B<1,6,1                                                        CORNB  29
    5 A#A-%R%52&IBEAN*2<-R%50&IBEAN<<*R%K<&B*R%64&%IBEAN-1<*489<        CORNB  30
    6 IC#8000026                                                        CORNB  31
     1&%IWET-1<*18&J&%IBEAN-1<*47                                       CORNB  32
      IR#7000001                                                        CORNB  33
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C       WORK%7-8< MAX WORK RATE USING MAX%7< AND MIN%8< TRACTORS                PREP   26
C       WORK%9< LABOR HOURS                                                    PREP   27
        DO 7 I#1,6                                                             PREP   28
        WORK%7<#AMAX1%WORK%I<,WORK%7<<                                         PREP   29
      7 WORK%9<#WORK%9<&WORK%I<*R%416&I<*R%466&I<                              PREP   30
        WORK%6<#S                                                              PREP   31
        IF%IBEAN<99,99,100                                                     PREP   32
     99 L2#10                                                                  PREP   33
      8 DO11I#1,L2                                                             PREP   34
        IR#7000001                                                             PREP   35
        IC#IC&1                                                                PREP   36
        A#R%526&3*IBEAN<&.001*I                                                JES11   1
        CALLAIJ%IR,IC,A<                                                       PREP   38
        IR#7000014&I-ISOY                                                      PREP   39
        IF%I.GT.L<IR#IR-L-9&ISOY                                               PREP   40
        A#WORK%9<                                                              PREP   41
        CALLAIJ%IR,IC,A<                                                       PREP   42
        IR#7000002                                                             PREP   43
        A#1.                                                                   PREP   44
        CALLAIJ%IR,IC,A<                                                       PREP   45
        IR#7000039&I-ISOY                                                      PREP   46
        IF%I.GT.L<IR#IR-L-21&ISOY                                              PREP   47
        MT#I-ISOY&395                                                          PREP   48
        IF%I.GE.L< MT#376-L&I                                                  PREP   49
        TRAC#R%MT<                                                             PREP   50
        A#BIG                                                                  PREP   51
        IF%TRAC.GT. 0.< A#WORK%6</TRAC                                         PREP   52
        A#AMAX1%A,WORK%7<<                                                     PREP   53
        CALLAIJ%IR,IC,A<                                                       PREP   54
        IR#7000050&I-ISOY                                                      PREP   55
        IF%IR.EQ.7000054< GO TO 80                                             PREP   56
        IF%I.GT.L< IR#IR-L-7&ISOY                                              PREP   57
        A#S3                                                                   PREP   58
        CALLAIJ%IR,IC,A<                                                       PREP   59
     80 CONTINUE                                                               PREP   60
        I1#66&9*ISOY                                                           PREP   61
        I2#I1&5                                                                PREP   62
        IF%I.GT.L<I1#I1&I-L-1                                                  PREP   63
        DO 9 J#I1,I2                                                           PREP   64
        IR#7000000&J                                                           PREP   65
        A#-1.                                                                  PREP   66
      9 CALLAIJ%IR,IC,A<                                                       PREP   67
        I1#71&9*ISOY &I                                                        PREP   68
        I2#74&9*ISOY                                                           PREP   69
        IF %I1.GT.I2< GO TO 120                                                JES18   1
        DO10J#I1,I2                                                            PREP   71
        IR#7000000&J                                                           PREP   72
        A#1.                                                                   PREP   73
     10 CALLAIJ%IR,IC,A<                                                       PREP   74
    120 A#1.                                                                   JES18   2
        IF %I.GT.4< GO TO 12                                                   JES19   1
        IF %I.GT.3.AND.IBEAN.EQ.0< GO TO 12                                    JES18   4
        IR#7000102                                                             PREP   76
        CALL AIJ%IR,IC,A<                                                      PREP   77
     12 IF %R%563<.GT.0.< GO TO 11                                             PREP   78
        IF %IBEAN.GT.0< GO TO 14                                               PREP   79
        IF %I.GT.2< GO TO 11                                                   PREP   80
        IF %I.EQ.2< GO TO 13                                                   PREP   81
        IR#7000105                                                             PREP   82
        A#1.                                                                   PREP   83
```

```
      A#A&R%65<                                                        CORNB 34
      CALLAIJ%IR,IC,A<                                                 CORNB 35
      IR#7000002&IBEAN                                                 CORNB 36
      A#1.                                                             CORNB 37
      CALLAIJ%IR,IC,A<                                                 CORNB 38
C                                                                      CORNB 39
C     POST PLANT AND PLANTING                                          CORNB 40
C                                                                      CORNB 41
      L#%J-1</3                                                        CORNB 42
      N#J-L*3                                                          CORNB 43
      DO7I#25,50                                                       CORNB 44
    7 WORK%I<#0.                                                       CORNB 45
C                                                                      CORNB 46
C     LABOR HOURS 25-32                                                CORNB 47
C     FIELD HOURS 34-41                                                CORNB 48
C     TRACTOR HOURS 43-50                                              CORNB 49
C                                                                      CORNB 50
C     PLANTING                                                         CORNB 51
      TRAC#R%377&L<                                                    CORNB 52
      A#BIG                                                            CORNB 53
      IF%TRAC.GT.0.< A#WORK%9</TRAC                                    CORNB 54
      WORK%25&L<#WORK%12<                                              CORNB 55
      IF%A.LT.WORK%15<< A#WORK%15<                                     CORNB 56
      IR#7000025&L                                                     CORNB 57
      WORK%43&L<#WORK%1<                                               CORNB 58
      CALLAIJ%IR,IC,A<                                                 CORNB 59
C     POST PLANT 1                                                     CORNB 60
      DO8I#1,2                                                         CORNB 61
      M#R%410&I*2&IBEAN<&L                                             CORNB 62
      IF%M.GT.11< GO TO 8                                              CORNB 63
      IF%M.GT.7<M#7                                                    CORNB 64
      WORK%25&M<#WORK%12&I<&WORK%25&M<                                 CORNB 65
      TRAC#R%377&M<                                                    CORNB 66
      A#BIG                                                            CORNB 67
      IF%TRAC.GT.0.< A#WORK%9&I</TRAC                                  CORNB 68
      A#AMAX1%A,WORK%16&I< <                                           CORNB 69
      WORK%34&M<#WORK%34&M<&A                                          CORNB 70
      IF%M.GT.5< GO TO 8                                               CORNB 71
      WORK%43&M<#WORK%43&M<&WORK%I&1<                                  CORNB 72
    8 CONTINUE                                                         CORNB 73
      IF#1                                                             CORNB 74
      I1#25                                                            CORNB 75
      I2#32                                                            CORNB 76
      IR#7000005                                                       CORNB 77
    9 DO10I#I1,I2                                                      CORNB 78
      IR#IR&1                                                          CORNB 79
      IF%WORK%I<.LE.0.<GOTO10                                          CORNB 80
      A#WORK%I<                                                        CORNB 81
      CALLAIJ%IR,IC,A<                                                 CORNB 82
   10 CONTINUE                                                         CORNB 83
      I1#I1&9                                                          CORNB 84
      I2#I2&9                                                          CORNB 85
      IR#7000030                                                       CORNB 86
      IF#IF&1                                                          CORNB 87
      GOTO%9,9,11,12<,IF                                               CORNB 88
   11 I2#48                                                            CORNB 89
      IR#7000043                                                       CORNB 90
      GOTO9                                                            CORNB 91
C                                                                      CORNB 92
C     HARVESTING                                                       CORNB 93
```

```
C                                                                       CORNB  94
12      C1#85-IBEAN*35                                                  CORNB  95
        C#%R%489&IBEAN*8<-R%488&IBEAN*6<</C1                            CORNB  96
        B#C*%100.-%IBEAN-1<*70-R%K<<&R%489&IBEAN*8<                     CORNB  97
        IF%R%K<.LE.0.<GOTO13                                            CORNB  98
C                                                                       CORNB  99
C       FIELD HOURS                                                     CORNB100
        IR#7000054&N&%IBEAN-1<*29                                       CORNB101
        A#BIG                                                           CORNB102
        IF%B.GT.0.< A#1./B                                              CORNB103
        CALLAIJ%IR,IC,A<                                                CORNB104
C                                                                       CORNB105
C       DRYING AND DRY GRAIN                                            CORNB106
C                                                                       CORNB107
   13 GO TO %17,130<,IWET                                               CORNB108
  130 IF%R%K<.EQ.0.< GO TO 17                                           CORNB109
        IF%R%60&IBEAN<<15,15,14                                         CORNB110
   14 FAC#1.                                                            CORNB111
        IF%R%61<.GT.0.< FAC#R%61</R%60&IBEAN<                           CORNB112
        JF#560-%2-IBEAN<*501                                            CORNB113
        A#R%K<*%R%K-3&IBEAN*4<-R%JF<<*FAC/10.                           CORNB114
        GOTO16                                                          CORNB115
   15   JF#560-%2-IBEAN<*501                                           CORNB116
        IF %R%K-3&IBEAN*4<-R%JF<< 160,160,151                           CORNB117
  151 A#BIG                                                             CORNB118
   16 IR#7000061-IBEAN&N                                                CORNB119
        IF%R%K<.EQ.0.< GOTO 17                                          CORNB120
         IF%A.LE.0.< GO TO 160                                          CORNB121
        CALL AIJ%IR,IC,A<                                               CORNB122
C                                                                       CORNB123
C       DRY CORN AND BEANS                                              CORNB124
C                                                                       CORNB125
  160 A#-R%K<                                                           CORNB126
        IR#7000060-IBEAN                                                CORNB127
        CALLAIJ%IR,IC,A<                                                CORNB128
C                                                                       CORNB129
C       LAND RECONCILIATION                                             CORNB130
C                                                                       CORNB131
   17 IR#7000066&L&%IBEAN-1<*9                                          CORNB132
        IR#IR-1                                                         CORNB133
        I1#L&1                                                          CORNB134
        I2#6                                                            CORNB135
        DO18I#I1,I2                                                     CORNB136
        IR#IR&1                                                         CORNB137
        A#1.                                                            CORNB138
   18   CALLAIJ%IR,IC,A<                                                CORNB139
        A#-1.                                                           CORNB140
        IR#IR&N-1                                                       CORNB141
        DO19I#N,3                                                       CORNB142
         IR#IR&1                                                        CORNB143
        IF %R%563<.GT.0.< GO TO 1000                                    JES2   1
   19 CALLAIJ%IR,IC,A<                                                  CORNB144
        IR#7000105                                                      CORNB145
        A#1.                                                            CORNB146
        IF %IBEAN.EQ.2< GO TO 172                                       CORNB147
        GO TO%1000,170,1[illegible]<,N                                  CORNB148
  170   CALL AIJ%IR,IC,A<                                               CORNB149
        GO TO 1000                                                      CORNB150
  171   CALL AIJ%IR,IC,A<                                               CORNB151
        IR#IR&1                                                         CORNB152
```

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 2       A#R%518<&R%519<&R%520<&R%521<-R%516<*R%K<&R%532<                  WHEAT 11
     3   IR#7000001                                                        WHEAT 12
         IC#8000109                                                        WHEAT 13
         IC#IC&I                                                           WHEAT 14
         CALLAIJ%IR,IC,A<                                                  WHEAT 15
         IR#7000002                                                        WHEAT 16
         A#1.                                                              WHEAT 17
         CALLAIJ%IR,IC,A<                                                  WHEAT 18
         IR#7000005                                                        WHEAT 19
         CALL AIJ%IR,IC,A<                                                 WHEAT 20
         W#BIG                                                             WHEAT 21
         S#0.                                                              WHEAT 22
         S3#0.                                                             WHEAT 23
         S2#0.                                                             WHEAT 24
         DO5J#1,4                                                          WHEAT 25
         WC#R%430&J<*R%448&J<                                              WHEAT 26
         IF%WC<5,5,4                                                       WHEAT 27
     4   W#AMIN1%W,WC<                                                     WHEAT 28
         S3#S3&1./R%448&J<                                                 WHEAT 29
         S#S&1./WC                                                         WHEAT 30
         S2#S2&R%480&J</R%448&J<                                           WHEAT 31
     5   CONTINUE                                                          WHEAT 32
         W#1./W                                                            WHEAT 33
         IF%R%396&L<<6,6,7                                                 WHEAT 34
     6   Z#BIG                                                             WHEAT 35
         GOTO8                                                             WHEAT 36
     7   Z#S/R%396&L<                                                      WHEAT 37
         Z#AMAX1%W,Z<                                                      WHEAT 38
C                                                                          WHEAT 39
C        ZISMAXTRACTORWORKINGRATE                                          WHEAT 40
C        SISSUMOFFALLWORKINGRATES                                          WHEAT 41
C        S2ISLABORSUM                                                      WHEAT 42
     8   IR#700001 4&L                                                     WHEAT 43
         IR#IR&1                                                           WHEAT 44
    12   A#S2                                                              WHEAT 45
         CALLAIJ%IR,IC,A<                                                  WHEAT 46
         IR#7000050&L                                                      WHEAT 47
         IR#IR&1                                                           WHEAT 48
         A#S3                                                              WHEAT 49
         CALLAIJ%IR,IC,A<                                                  WHEAT 50
         IR#7000039&L                                                      WHEAT 51
         IR#IR&1                                                           WHEAT 52
         A#Z                                                               WHEAT 53
         CALLAIJ%IR,IC,A<                                                  WHEAT 54
C        HARVESTING                                                        WHEAT 55
C                                                                          WHEAT 56
    14   W#%R%507<-R%502<</%45.-30.<                                       WHEAT 57
         WWW#R%507<&W*%30.-R%522&L<<                                       WHEAT 58
         IF%WWW<16,16,15                                                   WHEAT 60
    15   IR#7000099                                                        WHEAT 61
         A#1./WWW                                                          WHEAT 62
         CALLAIJ%IR,IC,A<                                                  WHEAT 63
    16   IR#7000098                                                        WHEAT 64
         A#-1.                                                             WHEAT 65
         CALLAIJ%IR,IC,A<                                                  WHEAT 66
         IF %R%563<.GT.0.< GO TO 30                                        JES2   1
         IR#7000105                                                        WHEAT 67
         A#1.                                                              WHEAT 68
         GO TO %17,18<,I                                                   WHEAT 69
   17    CALL AIJ%IR,IC,A<                                                 WHEAT 70
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```
      CALL AIJ%IR,IC,A<                                                 CORNB153
      GO TO 1000                                                        CORNB154
  172 IF %N.NE.3< GO TO 1000                                            CORNB155
      IR#7000105                                                        UPDATI 1
      CALL AIJ%IR,IC,A<                                                 CORNB157
 1000 CONTINUE                                                          CORNB158
      RETURN                                                            CORNB159
      END                                                               CORNB160
      SUBROUTINESETUP%ICRN<                                             SETUP   1
C                                                                       SETUP   2
C     SETUPPLANTING                                                     SETUP   3
C                                                                       SETUP   4
C     WORK%1-8<HR/ACREEACHIMPLEMENT                                     SETUP   5
C     WORK%9-11<HR/ACREALLIMPLEMENTS                                    SETUP   6
C     WORK%12-14<LABORHRS/ACRE                                          SETUP   7
      COMMON R,IADJ,WORK%50<,BIG                                        SETUP   8
      DIMENSION R%600<                                                  SETUP   9
      L#%ICRN-1<*18                                                     SETUP  10
      WORK%19<#0.                                                       SETUP  11
      DO1000I#1,8                                                       SETUP  12
      A#R%422&I<*R%440&I&L<                                             SETUP  13
      WORK%I<#0.                                                        SETUP  14
      IF%A<1000,1000,900                                                SETUP  15
  900 WORK%I<#1.0/A                                                     SETUP  16
 1000 WORK%8&I<#0.                                                      SETUP  17
      DO1100I#1,4                                                       SETUP  18
      WORK%9<#WORK%9<&WORK%I<                                           SETUP  19
      WORK%19<#WORK%19<&WORK%I<*R%422&I<                                SETUP  20
 1100 WORK%12<#WORK%12<&WORK%I<*R%422&I<*R%472&I<                       SETUP  21
      WORK%15<#0.                                                       SETUP  22
      WORK%17<#0.                                                       SETUP  23
      WORK%18<#0.                                                       SETUP  24
 1250 DO1300I#1,4                                                       SETUP  25
 1300 WORK%15<#AMAX1%WORK%15<,WORK%I<<                                  SETUP  26
      WORK%1<#WORK%19<                                                  SETUP  27
      WORK%2<#0.                                                        SETUP  28
      WORK%3<#0.                                                        SETUP  29
      DO1400I#1,2                                                       SETUP  30
      WORK%10<#WORK%10<&WORK%4&I<                                       SETUP  31
      WORK%2<#WORK%2<&WORK%I&4<*R%426&I<                                SETUP  32
      WORK%3<#WORK%3<&WORK%6&I<*R%428&I<                                SETUP  33
      WORK%11<#WORK%11<&WORK%6&I<                                       SETUP  34
      WORK%13<#WORK%13<&WORK%4&I<*R%426&I<*R%476&I<                     SETUP  35
 1400 WORK%14<#WORK%14<&WORK%6&I<*R%428&I<*R%478&I<                     SETUP  36
 1550 DO1600I#1,2                                                       SETUP  37
      WORK%17<#AMAX1%WORK%17<,WORK%4&I<<                                SETUP  38
 1600 WORK%18<#AMAX1%WORK%18<,WORK%6&I<                                 SETUP  39
     1<                                                                 SETUP  40
      RETURN                                                            SETUP  41
      END                                                               SETUP  42
      SUBROUTINEWHEAT                                                   WHEAT   1
      DIMENSIONR%600<                                                   WHEAT   2
      COMMONR,IADJ,WORK%50<,BIG                                         WHEAT   3
      IF%IADJ.EQ.2<RETURN                                               WHEAT   4
      DO 30 I#1,2                                                       WHEAT   5
      K#521&I                                                           WHEAT   6
      L#I-1                                                             WHEAT   7
      IF%R%522&L<.NE.0. .AND. R%534<.NE.0.< GO TO 2                     WHEAT   8
    1 A#BIG                                                             WHEAT   9
      GOTO3                                                             WHEAT  10
```

```
      A#BIG                                                          SILAG 32
      IF%TRAC.GT.0.< A#WORK%9</TRAC                                  SILAG 33
      A#AMAX1%A,WORK%15<<                                            SILAG 34
      IR#7000025&IPLANT                                              SILAG 35
      CALL AIJ%IR,IC,A<                                              SILAG 36
      WORK%43&IPLANT<#WORK%1<                                        SILAG 37
      DO 6 I#1,2                                                     SILAG 38
      M#R%411&I*2<&IPLANT                                            SILAG 39
      IF%M.GT.11< GO TO 6                                            SILAG 40
      IF%M.GT.7< M#7                                                 SILAG 41
      WORK%25&M<#WORK%25&M<&WORK%12&I<                               SILAG 42
      A#BIG                                                          SILAG 43
      TRAC#R%377&M<                                                  SILAG 44
      IF%TRAC.GT.0.< A#WORK%9&I</TRAC                                SILAG 45
      WORK%34&M<#WORK%34&M<&AMAX1%A,WORK%16&I<<                      SILAG 46
      IF%M.GT.5 < GO TO 6                                            SILAG 47
      WORK%43&M<#WORK%43&M<&WORK%1&I<                                SILAG 48
    6 CONTINUE                                                       SILAG 49
      I1#25                                                          SILAG 50
      I2#32                                                          SILAG 51
      IF#1                                                           SILAG 52
      IR#7000005                                                     SILAG 53
    7 DO 9 I#I1,I2                                                   SILAG 54
      IR#IR&1                                                        SILAG 55
      IF%WORK%I<< 9,9,8                                              SILAG 56
    8 A#WORK%I<                                                      SILAG 57
      CALL AIJ%IR,IC,WORK%I<<                                        SILAG 58
    9 CONTINUE                                                       SILAG 59
      I1#I1&9                                                        SILAG 60
      I2#I2&9                                                        SILAG 61
       IR#7000030                                                    SILAG 62
      IF#IF&1                                                        SILAG 63
      GO TO %7,7,10,11<,IF                                           SILAG 64
   10 I2#48                                                          JES23  1
      IR#7000043                                                     SILAG 66
      GO TO 7                                                        SILAG 67
C                                                                    SILAG 68
C   HARVESTING                                                       SILAG 69
C                                                                    SILAG 70
   11 IF%R%510<< 1001,1001,1002                                      SILAG 71
 1001 A#BIG                                                          SILAG 72
      GO TO 1003                                                     SILAG 73
 1002 A#1.0/R%510<                                                   SILAG 74
 1003 IR#7000102&IHAR                                                SILAG 75
      CALL AIJ%IR,IC,A<                                              SILAG 76
C                                                                    SILAG 77
C      LAND                                                          SILAG 78
C                                                                    SILAG 79
   14 I1#66&IPLANT                                                   SILAG 80
      I2#71                                                          SILAG 81
      A#1.                                                           SILAG 82
      DO 15 I#I1,I2                                                  SILAG 83
      IR#I&7000000                                                   SILAG 84
   15 CALL AIJ%IR,IC,A<                                              SILAG 85
      A#-1.                                                          SILAG 86
      I1#71&IHAR                                                     SILAG 87
      I2#74                                                          SILAG 88
      DO 16 I#I1,I2                                                  SILAG 89
      IR#I&7000000                                                   SILAG 90
   16 CALL AIJ%IR,IC,A<                                              SILAG 91
```

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      IR#IR&1                                                          WHEAT 71
      CALL AIJ%IR,IC,A<                                                WHEAT 72
      GO TO 30                                                         WHEAT 73
   18 IR#IR&1                                                          WHEAT 74
      CALL AIJ%IR,IC,A<                                                WHEAT 75
   30 CONTINUE                                                         WHEAT 76
      RETURN                                                           WHEAT 77
      END                                                              WHEAT 78
      SUBROUTINESTORED                                                 STORE  1
      COMMONR,IADJ,WORK%50<,BIG                                        STORE  2
      DIMENSIONR%600<                                                  STORE  3
      IF%IADJ.EQ.2<RETURN                                              STORE  4
      IC#8000112                                                       STORE  5
      IR#7000001                                                       STORE  6
      A#-R%57<                                                         STORE  7
      CALLAIJ%IR,IC,A<                                                 STORE  8
      IR#7000059                                                       STORE  9
      A#1.                                                             STORE 10
      CALLAIJ%IR,IC,A<                                                 STORE 11
      IR#7000064                                                       STORE 12
      CALLAIJ%IR,IC,A<                                                 STORE 13
      IC#IC&1                                                          STORE 14
      IR#7000001                                                       STORE 15
      A#-R%58<                                                         STORE 16
      CALLAIJ%IR,IC,A<                                                 STORE 17
      A#1.                                                             STORE 18
      IR#7000058                                                       STORE 19
      CALLAIJ%IR,IC,A<                                                 STORE 20
      IR#7000064                                                       STORE 21
      CALLAIJ%IR,IC,A<                                                 STORE 22
      RETURN                                                           STORE 23
      END                                                              STORE 24
      SUBROUTINE SILAGE                                                SILAG  1
      COMMON R,IADJ,WORK%50<,BIG                                       SILAG  2
      DIMENSION R%600<                                                 SILAG  3
      IF%IADJ.EQ.2<RETURN                                              SILAG  4
      CALL SETUP%1<                                                    SILAG  5
      IHV#1                                                            SILAG  6
      DO 1000 J#1,12                                                   SILAG  7
      IC#IHV*12&J&101                                                  SILAG  8
      IC#IC&8000000                                                    SILAG  9
      IPLANT#%J-1</2                                                   SILAG 10
      TRAC#R%377&IPLANT<                                               SILAG 11
      IR#7000001                                                       SILAG 12
      IHAR#J-IPLANT*2                                                  SILAG 13
      K#71&IPLANT*21&IHAR*7-7                                          SILAG 14
      IF%R%K<<1,1,2                                                    SILAG 15
    1 A#BIG                                                            SILAG 16
      GO TO 4                                                          SILAG 17
    2 KL#K&2                                                           SILAG 18
      LL#K&6                                                           SILAG 19
      A#R%65<                                                          SILAG 20
      DO 3 I#KL,LL                                                     SILAG 21
    3 A#A&R%I<                                                         SILAG 22
      A#A-R%15<*R%14<                                                  SILAG 23
      IF%IHV.EQ.2.AND.R%493<.EQ.0.< GO TO 1                            SILAG 24
    4 CALL AIJ%IR,IC,A<                                                SILAG 25
      DO 5 I#25,50                                                     SILAG 29
    5 WORK%I<#0.                                                       SILAG 30
      WORK%25&IPLANT<#WORK%12<                                         SILAG 31
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      CALL AIJ%IR,IC,A<                                                 DOUBL 54
   13 IR#7000058                                                        DOUBL 55
      A#-R%535<                                                         DOUBL 56
      CALL AIJ%IR,IC,A<                                                 DOUBL 57
 1100 C#%R%505<-R%500<</15.                                             DOUBL 58
      B#C* %30.-R%535<<&R%505<                                          DOUBL 59
      A#BIG                                                             DOUBL 60
      IF %B.GT.0.< A#1./B                                               DOUBL 61
      IR#7000086                                                        DOUBL 62
      CALL AIJ%IR,IC,A<                                                 DOUBL 63
      IR#7000098                                                        DOUBL 64
      A#1.                                                              DOUBL 65
      CALL AIJ%IR,IC,A<                                                 DOUBL 66
      IR#7000101                                                        DOUBL 67
      CALL AIJ%IR,IC,A<                                                 DOUBL 68
      IF %R%563<.GT.0.< GO TO 1000                                      JES2   1
      IR#7000105                                                        DOUBL 69
      A#1.                                                              DOUBL 70
      CALL AIJ%IR,IC,A<                                                 DOUBL 71
      IR#IR&1                                                           DOUBL 72
      CALL AIJ%IR,IC,A<                                                 DOUBL 73
 1000 CONTINUE                                                          DOUBL 74
      RETURN                                                            DOUBL 75
      END                                                               DOUBL 76
      SUBROUTINE CUSTOM                                                 CUSTO  1
      COMMON R,IADJ,WORK%50<,BIG                                        CUSTO  2
      DIMENSION R%600<                                                  CUSTO  3
      IC#8000127                                                        CUSTO  4
      DO 1000 I#1,2                                                     CUSTO  5
      I1#47&%I-1<*508                                                   CUSTO  6
      IF%R%I1&1<.GT.R%I1<<R%I1&1<#R%I1<-.01                             CUSTO  7
      DO 500 J#1,3                                                      CUSTO  8
      IC#IC&1                                                           CUSTO  9
      IR#7000001                                                        CUSTO 10
      A#R%499&%I-1<*9<-R%496&%I-1<*7<                                   CUSTO 11
      A#A/%50.-35.* %I-1<<                                              CUSTO 12
      A#A*%100.-70.*%I-1<-R%525&I*3<<&R%499&%I-1<*9<                    CUSTO 13
      AVG#R%494&%I-1<*6<                                                CUSTO 14
      AVG1#R%497&%I-1<*8<                                               CUSTO 15
  302 WR#AVG1&%100.-70.*%I-1<-R%525&I*3<<*%AVG1-AVG</%50.-35.*%I-1<<    CUSTO 16
      B#R%528&%I-1<*3<*R%I1<*WR                                         CUSTO 17
      IF%B<1,1,2                                                        CUSTO 18
    1 B#BIG                                                             CUSTO 19
    2 CALL AIJ%IR,IC,B<                                                 CUSTO 20
      IR#7000015&J-I                                                    CUSTO 21
      A#A-R%49<                                                         CUSTO 22
      A#AMAX1%A,0.<                                                     CUSTO 23
      CALL AIJ%IR,IC,A<                                                 CUSTO 24
      IR#7000054&29*%I-1<&J                                             CUSTO 25
      A#-1.                                                             CUSTO 26
  500 CALL AIJ%IR,IC,A<                                                 CUSTO 27
      DO 600 J#1,3                                                      CUSTO 28
      IC#IC&1                                                           CUSTO 29
      K#48&508*%I-1<                                                    CUSTO 30
      A#%R%K<*R%525&I*3<-R%524&I*3<      <*WR                           CUSTO 31
      A#-A                                                              CUSTO 32
      IF%A<200,100,100                                                  CUSTO 33
  100 A#BIG                                                             CUSTO 34
  200 IR#7000001                                                        CUSTO 35
      CALL AIJ%IR,IC,A<                                                 CUSTO 36
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```
      IR#7000088&IPLANT                                                 SILAG  92
      CALL AIJ%IR,IC,A<                                                 SILAG  93
      IR#7000100                                                        SILAG  94
      A#1.                                                              SILAG  95
      CALL AIJ%IR,IC,A<                                                 SILAG  96
 1000 CONTINUE                                                          SILAG  97
      RETURN                                                            SILAG  98
      END                                                               SILAG  99
      SUBROUTINE DOUBLE                                                 DOUBL   1
      DIMENSION R%600<                                                  DOUBL   2
      COMMONR,IADJ,WORK%50<,BIG                                         DOUBL   3
      IF%IADJ.EQ.2< RETURN                                              DOUBL   4
      DO 1000 I#1,2                                                     DOUBL   5
  100 IF%R%535<<1,1,2                                                   DOUBL   6
    1 A#BIG                                                             DOUBL   7
      GO TO 5                                                           DOUBL   8
    2 A#R%537<&R%538<&R%539<&R%540<&R%529<                              DOUBL   9
      GO TO %3,4<,I                                                     DOUBL  10
    3   A#A-R%535<*%R%56<-R%52<<                                        DOUBL  11
     1&%R%536<-R%560<<*R%535<*R%553</10.                                JES23   1
      GO TO 5                                                           DOUBL  13
    4   A#A&%R%536<-R%560<<*R%535<*R%554</10.                           JES23   2
      IF %R%62<.EQ.0..AND.R%536<.GT.R%560<< GO TO 1                     JES23   3
    5 IC#8000125&I                                                      DOUBL  16
      IR#7000001                                                        DOUBL  17
      CALL AIJ%IR,IC,A<                                                 DOUBL  18
C                                                                       DOUBL  19
C     PLANTING                                                          DOUBL  20
C                                                                       DOUBL  21
      A#0.                                                              DOUBL  22
      B#0.                                                              DOUBL  23
      C#0.                                                              DOUBL  24
      D#0.                                                              DOUBL  26
      DO 6 K#1,3                                                        DOUBL  27
      E#R%540&K<*R%543&K<                                               DOUBL  28
      IF%E.LE.0.< GO TO 6                                               DOUBL  29
      E#1./E                                                            DOUBL  30
      A#A&E                                                             DOUBL  31
      B#B&R%540&K<*E*R%546&K<                                           DOUBL  32
      C#AMAX1%C,E<                                                      DOUBL  33
    6 CONTINUE                                                          DOUBL  34
      IF%C<7,7,8                                                        DOUBL  35
    7 D#BIG                                                             DOUBL  36
      GO TO 10                                                          DOUBL  37
    8 IF%R%384<< 7,7,9                                                  DOUBL  38
    9 D#A/R%384<                                                        DOUBL  39
      D#AMAX1%C,D<                                                      DOUBL  40
   10 IR#7000013                                                        DOUBL  41
      A#B                                                               DOUBL  42
      CALL AIJ%IR,IC,A<                                                 DOUBL  43
      A#D                                                               DOUBL  44
      IR#7000038                                                        DOUBL  45
      CALL AIJ%IR,IC,A<                                                 DOUBL  46
      GO TO %1100,11<,I                                                 DOUBL  47
   11 IF%R%62<<1001,1001,12                                             DOUBL  48
 1001 IF %R%536<-R%560<< 13,13,1100                                     DOUBL  49
   12 FAC#1.                                                            DOUBL  50
      IF%R%61<.GT.0.< FAC#R%61</R%62<                                   DOUBL  51
       A#R%535<*%R%536<-R%560<</10.*FAC                                 DOUBL  52
      IR#7000062                                                        JES23   4
```

```
      IR#7000015&J-I                                                    CUSTO 37
      A#?%49<                                                           CUSTO 38
      CALL AIJ%IR,IC,A<                                                 CUSTO 39
      IR#7000109&3*%I-1<&J                                              CUSTO 40
      A#1.                                                              CUSTO 41
      CALL AIJ%IR,IC,A<                                                 CUSTO 42
  600 CONTINUE                                                          CUSTO 43
 1000 CONTINUE                                                          CUSTO 44
      A#%R%509<-R%504<</15.*%30.-R%534<<&R%509<                         CUSTO 45
      A#A-R%49<                                                         CUSTO 46
      B#AMAX1%A,0.<                                                     CUSTO 47
C                                                                       CUSTO 48
C WHEAT CUSTOM LABOR'                                                   CUSTO 49
C                                                                       CUSTO 50
      IC#IC&1                                                           CUSTO 51
      BD#R%507<-R%502<                                                  CUSTO 52
      BD#BD/15.*%30.-R%534<<&R%507<                                     CUSTO 53
      A#R%45<*BD                                                        CUSTO 54
      IR#7000001                                                        CUSTO 55
      CALL AIJ%IR,IC,A<                                                 CUSTO 56
      IR#7000013                                                        CUSTO 57
      CALL AIJ%IR,IC,B<                                                 CUSTO 58
      IR#7000099                                                        CUSTO 59
      A#-1.                                                             CUSTO 60
      CALL AIJ%IR,IC,A<                                                 CUSTO 61
      IC#IC&1                                                           CUSTO 62
      IF %R%45<.LT.R%559<< R%559<#R%45<-.05                             CUSTO 63
      IR#7000001                                                        CUSTO 64
      A#BD*R%559<                                                       CUSTO 65
      A#%-A<&BD*R%533<                                                  JES23  1
      CALL AIJ%IR,IC,A<                                                 CUSTO 66
      IR#7000013                                                        CUSTO 67
      A#R%49<                                                           CUSTO 68
      CALL AIJ%IR,IC,A<                                                 CUSTO 69
      IR#7000116                                                        CUSTO 70
      A#1.                                                              CUSTO 71
      CALL AIJ%IR,IC,A<                                                 CUSTO 72
 2000 CONTINUE                                                          CUSTO 73
      DO 3000 I#1,2                                                     CUSTO 74
      IC#IC&1                                                           CUSTO 75
      IF%R%510<< 3001,3001,3002                                         CUSTO 76
 3001 A#BIG                                                             CUSTO 77
      GO TO 3003                                                        CUSTO 78
 3002 A#R%46<*R%510<                                                    CUSTO 79
 3003 IR#7000001                                                        CUSTO 80
      CALL AIJ%IR,IC,A<                                                 CUSTO 81
      A#-1.                                                             CUSTO 82
      IR#7000103&I-1                                                    CUSTO 83
      CALL AIJ%IR,IC,A<                                                 CUSTO 84
      A#R%511<-R%50<                                                    CUSTO 85
      A#AMAX1%0.,A<                                                     CUSTO 86
      IR#7000013&I                                                      CUSTO 87
      CALL AIJ%IR,IC,A<                                                 CUSTO 88
      A#R%488<                                                          CUSTO 89
      IR#7000049&I                                                      CUSTO 90
      CALL AIJ%IR,IC,A<                                                 CUSTO 91
 3000 CONTINUE                                                          CUSTO 92
      RETURN                                                            CUSTO 93
      END                                                               CUSTO 94
      SUBROUTINE BCCOMB                                                 BCCOM  1
```

```
      COMMON R,IADJ,WORK%50<,BIG                                        BCCOM   2
      DIMENSION R%600<                                                  BCCOM   3
      CAPC#R%497<&%R%497<-R%494<</50.*%R%528<-100.0<                    BCCOM   4
      CAPB#R%505<&%R%505<-R%500<</15.*%R%531<-30.<                      BCCOM   5
      CAPBC#R%506<&%R%506<-R%501<</15.*%R%531<-30.<                     BCCOM   6
      CAPCB#R%498<&%R%498<-R%495<</50.*%R%528<-100.<                    BCCOM   7
      CAPC#2.*R%497<-CAPC                                               BCCOM   8
      CAPB#2.*R%505<-CAPB                                               BCCOM   9
      CAPBC#2.*R%506<-CAPBC                                             BCCOM  10
      CAPCB#2.*R%498<-CAPCB                                             BCCOM  11
      RATC#-1.                                                          BCCOM  12
      RATB#-1.                                                          BCCOM  13
      AC#R%499<-R%496<                                                  BCCOM  14
      AC#AC/50.*%100.-R%528<<&R%499<                                    BCCOM  15
      AC#AMAX1%0.,AC<                                                   BCCOM  16
      AB#%R%508<-R%503<</15.*%30.-R%531<<&R%508<                        BCCOM  17
      AB#AMAX1%0.,AB<                                                   BCCOM  18
      IF%CAPC.GT.0.< GO TO 1                                            BCCOM  19
      RATC#1.                                                           BCCOM  20
    1 IF%CAPCB.GT.0.< GO TO 2                                           BCCOM  21
      RATC#0.                                                           BCCOM  22
    2 IF%RATC<3,4,4                                                     BCCOM  23
    3 RATC#CAPCB/CAPC                                                   BCCOM  24
    4 IF%CAPB.GT.0.< GO TO 5                                            BCCOM  25
      RATB#1.                                                           BCCOM  26
    5 IF%CAPBC.GT.0.< GO TO 6                                           BCCOM  27
      RATB#0.                                                           BCCOM  28
    6 IF%RAIB<7,8,8                                                     BCCOM  29
    7 RATB#CAPBC/CAPB                                                   BCCOM  30
    8 DO 9 I#1,3                                                        BCCOM  31
      IC#8000143&I                                                      BCCOM  32
      A#R%530<*CAPBC                                                    BCCOM  33
      A#AMAX1%0.,A<                                                     BCCOM  34
      IR#7000001                                                        BCCOM  35
      CALL AIJ%IR,IC,A<                                                 BCCOM  36
      IR#7000013&I                                                      BCCOM  37
      CALL AIJ%IR,IC,AB<                                                BCCOM  38
      IR#7000049&I                                                      BCCOM  39
      A#R%486<                                                          BCCOM  40
      CALL AIJ%IR,IC,A<                                                 BCCOM  41
      IR#7000083&I                                                      BCCOM  42
      A#-RATB                                                           BCCOM  43
      CALL AIJ%IR,IC,A<                                                 BCCOM  44
      A#1.                                                              BCCOM  45
      IR#7000093&I                                                      BCCOM  46
      CALL AIJ%IR,IC,A<                                                 BCCOM  47
      IR#7000106&I                                                      BCCOM  48
    9 CALL AIJ%IR,IC,A<                                                 BCCOM  49
      DO 10 I#1,3                                                       BCCOM  50
      IC#IC&1                                                           BCCOM  51
      IR#7000001                                                        BCCOM  52
      A#R%527<*CAPCB                                                    BCCOM  53
      A#AMAX1%0.,A<                                                     BCCOM  54
       CALL AIJ%IR,IC,A<                                                BCCOM  55
      IR#7000014&I                                                      BCCOM  56
      CALL AIJ%IR,IC,AL<                                                BCCOM  57
      IR#7000050&I                                                      BCCOM  58
      A#R%486<                                                          BCCOM  59
      CALL AIJ%IR,IC,A<                                                 BCCOM  60
      IR#7000054&I                                                      BCCOM  61
```

```
      A#-RATC                                                          BCCOM  62
      CALL AIJ%IR,IC,A<                                                BCCOM  63
      IR#7000094&I                                                     BCCOM  64
      A#1.                                                             BCCOM  65
   10 CALL AIJ%IR,IC,A<                                                BCCOM  66
      RETURN                                                           BCCOM  67
      END                                                              BCCOM  68
      SUBROUTINE RESERV                                                RESER   1
      COMMON R, IADJ,WORK%50<,BIG                                      RESER   2
      DIMENSION R%600<                                                 RESER   3
      IRO#7000001                                                      RESER   4
      A#1.                                                             RESER   5
      D4#.004                                                          JES23   1
      IC#8000149                                                       RESER   6
      IR#7000005                                                       RESER   7
      DO 3 I#1,13                                                      RESER   8
      IC#IC&1                                                          RESER   9
      K#354                                                            RESER  10
      IF%I.GT.8< K#376                                                 RESER  11
      IR#IR&1                                                          RESER  12
      A#R%307&I<*R%327&I<*R%K&I<                                       RESER  13
      A#A&D4                                                           JES23   2
      IF %I.NE.13< GO TO 8                                             RESER  14
      DO 7 J#1,2                                                       RESER  15
      A#R%305&J<*R%325&J<*R%352&J<&A                                   JES23   3
    7 CONTINUE                                                         RESER  18
    8 B#0.                                                             RESER  19
      CALL BNDD%IC,A,B<                                                RESER  20
      A#1.                                                             RESER  21
      IF%R%68<<2,2,1                                                   RESER  22
    1 A1#-R%68<                                                        RESER  23
      CALL AIJ%IRO,IC,A1<                                              RESER  24
    2 CALL AIJ%IR,IC,A<                                                RESER  25
    3 CONTINUE                                                         RESER  26
      A#1.                                                             RESER  27
      IR#7000057                                                       RESER  28
      IRO#7000001                                                      RESER  29
      DO 6 I#1,2                                                       RESER  30
      IC#IC&1                                                          RESER  31
      IR#IR&1                                                          RESER  32
      IF%R%57-I*2<<5,5,4                                               RESER  33
    4 A1#-R%57-I*2<                                                    RESER  34
      CALL AIJ%IRO,IC,A1<                                              RESER  35
    5 CALL AIJ%IR,IC,A<                                                RESER  36
    6 CONTINUE                                                         RESER  37
      RETURN                                                           RESER  38
      END                                                              RESER  39
      SUBROUTINE ARTSIL                                                ARTSI   1
      IROW#7000087                                                     ARTSI   2
      ICOL#8000179                                                     ARTSI   3
      IR#7000001                                                       ARTSI   4
      DO 1 I#1,6                                                       ARTSI   5
      IROW#IROW&1                                                      ARTSI   6
      ICOL#ICOL&1                                                      ARTSI   7
      A#9999999.                                                       ARTSI   8
      CALL AIJ%IR,ICOL,A<                                              ARTSI   9
      A#-1.                                                            ARTSI  10
    1 CALL AIJ%IROW,ICOL,A<                                            ARTSI  11
      RETURN                                                           ARTSI  12
      END                                                              ARTSI  13
```

```
      SUBROUTINE HARVES                                                 HARVE   1
      COMMON R,IADJ,WORK%50<,BIG                                        HARVE   2
      DIMENSION R%600<                                                  HARVE   3
      IC#8000164                                                        HARVE   4
      DO 1 I#1,2                                                        HARVE   5
      B#R%499&%I-1<*9<&%R%499&%I-1<*9<-R%496&%I-1<*7<<                  HARVE   6
     1  /%50.-%I-1<*35.<*%100.-%I-1<*70.                               HARVE   7
     1-R%525&I*3<<                                                      HARVE   8
      DO 1 J#1,3                                                        HARVE   9
      IC#IC&1                                                           HARVE  10
      A#0.                                                              HARVE  11
      WR#R%497&%I-1<*8<&%R%497&%I-1<*8<-R%494&%I-1<*6<</%50.-%I-1<*35.<  JES23   1
     1*%100.-%I-1<*70.-R%528&%I-1<*3<  <                                HARVE  13
      A#R%524&I*3<*WR                                                   HARVE  14
      IR#7000001                                                        HARVE  15
      CALL AIJ%IR,IC,A<                                                 HARVE  16
      IR#7000015-I&J                                                    HARVE  17
      CALL AIJ%IR,IC,B<                                                 HARVE  18
      A#-1.                                                             HARVE  19
      IR#7000054&J&%I-1<*29                                             HARVE  20
      CALL AIJ%IR,IC,A<                                                 HARVE  21
      A#R%486<                                                          HARVE  22
       IR#7000051-I&J                                                   HARVE  23
      CALL AIJ%IR,IC,A<                                                 HARVE  24
      IR#7000109&3*%I-1<&J                                              HARVE  25
      A#1.                                                              HARVE  26
     1 CALL AIJ%IR,IC,A<                                                HARVE  27
      DO 2 I#1,2                                                        HARVE  28
      IC#IC&1                                                           HARVE  29
      A#0.                                                              HARVE  30
      IF%R%493<.GT.0.< A#R%315&I<*R%335&I<*R%411<                       HARVE  31
      C#0.                                                              JES23   2
      CALL BNDD%IC,A,C<                                                 HARVE  32
      IR#7000013&I                                                      HARVE  33
      A#R%511<                                                          HARVE  34
      CALL AIJ%IR,IC,A<                                                 HARVE  35
      IR#7000001                                                        HARVE  36
      A#R%525<*R%510<                                                   HARVE  37
      CALL AIJ%IR,IC,A<                                                 HARVE  38
       A#R%487<                                                         HARVE  39
       IR#7000049&I                                                     HARVE  40
      CALL AIJ%IR,IC,A<                                                 HARVE  41
      A#-1.                                                             HARVE  42
      IR#7000102&I                                                      HARVE  43
     2 CALL AIJ%IR,IC,A<                                                HARVE  44
      IC#IC&1                                                           HARVE  45
      IR#7000001                                                        HARVE  46
      A#R%533<*%R%507<&%R%507<-R%502<<*15.*%30.-R%534<<<                JES4    1
      CALL AIJ%IR,IC,A<                                                 HARVE  48
      IR#7000013                                                        HARVE  49
      A#R%509<-R%504<                                                   HARVE  50
      A#A/15.*%30.-R%534<<&R%509<                                       HARVE  51
      CALL AIJ%IR,IC,A<                                                 HARVE  52
      IR#7000099                                                        HARVE  53
      A#-1.                                                             HARVE  54
      CALL AIJ%IR,IC,A<                                                 HARVE  55
      IC#8000173                                                        HARVE  56
      IR#7000116                                                        HARVE  57
      A#1.                                                              HARVE  58
      CALL AIJ%IR,IC,A<                                                 HARVE  59
```

```
      1 DO 4 I#4,13                                                    RHS1   31
        I1#I1&1                                                        RHS1   32
        I2#I2 &1                                                       RHS1   33
        I3#I3&1                                                        RHS1   34
        A#R%I1<*R%I2<*R%I3<&D3                                         JES23   5
        IF%I-5< 2,2,3                                                  RHS1   36
      2 S#S&A                                                          RHS1   37
        GO TO 4                                                        RHS1   38
      3 IR#I&7000000                                                   RHS1   39
        CALL RHS%IR,A<                                                 RHS1   40
      4 CONTINUE                                                       RHS1   41
        I1#315                                                         RHS1   42
        I2#335                                                         RHS1   43
        I3#384                                                         RHS1   44
        DO 6 I#14,18                                                   RHS1   45
        I1#I1&1                                                        RHS1   46
        IR#7000000&I                                                   RHS1   47
        I2#I2&1                                                        RHS1   48
        I3#I3&1                                                        RHS1   49
        A#R%I1<*R%I2<*R%I3<                                            RHS1   50
        IF%I-18<6,5,5                                                  RHS1   51
      5 A#A&S                                                          RHS1   52
      6 CALL RHS%IR,A<                                                 RHS1   53
C                                                                      RHS1   54
C       SPRING LAND PREP                                               RHS1   55
C                                                                      RHS1   56
        T#R%406<                                                       RHS1   57
        I1#307                                                         RHS1   58
        I2#327                                                         RHS1   59
        DO 7 I#19,24                                                   RHS1   60
        I1#I1&1                                                        RHS1   61
        I2#I2&1                                                        RHS1   62
        A#R%I1<*R%I2<*T                                                RHS1   63
        IR#I&7000000                                                   RHS1   64
      7 CALL RHS%IR,A<                                                 RHS1   65
C                                                                      RHS1   66
C        PLANTING HOURS                                                RHS1   67
C                                                                      RHS1   68
        I1#307                                                         RHS1   69
        I2#327                                                         RHS1   70
        I3#345                                                         RHS1   71
        DO 8 I#25,30                                                   RHS1   72
        IR#7000000&I                                                   RHS1   73
        I1#I1&1                                                        RHS1   74
        I2#I2&1                                                        RHS1   75
        I3#I3&1                                                        RHS1   76
        A#R%I1<*R%I2<*R%I3<                                            RHS1   77
      8 CALL RHS%IR,A<                                                 RHS1   78
C                                                                      RHS1   79
C     POST PLANT HOURS                                                 RHS1   80
C                                                                      RHS1   81
        T#R%407<                                                       RHS1   82
        I1#307                                                         RHS1   83
        I2#327                                                         RHS1   84
        DO9 I#31,38                                                    RHS1   85
        IR#I&7000000                                                   RHS1   86
        I1#I1&1                                                        RHS1   87
        I2#I2&1                                                        RHS1   88
        A#R%I1<*R%I2<*T                                                RHS1   89
      9 CALL RHS%IR,A<                                                 RHS1   90
```

```
      DO 1000 I#1,2                                                    HARVE 60
      K#48&508*%I-1<                                                   HARVE 61
      DO 500 J#1,3                                                     HARVE 62
      IC#IC&1                                                          HARVE 63
  301 AVG#R%495&%I-1<*6<                                               HARVE 64
      AVG1#R%498&%I-1<*8<                                              HARVE 65
  302 WR#AVG1&%100.-70.*%I-1<-R%525&I*3<<*%AVG1-AVG</%50.-35.*%I-1<<   JES17  1
      A#%R%K<*R%525&I*3<-R%524&I*3<      <*WR                          HARVE 67
      A#-A                                                             HARVE 68
      IF %A< 200,100,100                                               HARVE 69
  100 A#BIG                                                            HARVE 70
  200 IR#7000001                                                       HARVE 71
      CALL AIJ%IR,IC,A<                                                HARVE 72
      IR#7000015&J-I                                                   HARVE 73
      A#R%49<                                                          HARVE 74
      CALL AIJ%IR,IC,A<                                                HARVE 75
      IR#7000094&12*%I-1<&J                                            HARVE 76
      A#1.                                                             HARVE 77
      CALL AIJ%IR,IC,A<                                                HARVE 78
      IR#93&J&7000000                                                  HARVE 79
      IF%I.EQ.2< CALL AIJ%IR,IC,A<                                     HARVE 80
  500 CONTINUE                                                         HARVE 81
 1000 CONTINUE                                                         HARVE 82
      RETURN                                                           HARVE 83
      END                                                              HARVE 84
      SUBROUTINE RHS1                                                  RHS1   1
      DIMENSION R%600<                                                 RHS1   2
      COMMON R,IADJ,WORK%50<,BIG                                       RHS1   3
      COMMON/BND/BNDS%70,3<,IBD2,IRHSF                                 CHNG  10
      IRHSF=0                                                          CHNG  20
      IF%IADJ.EQ.2< GO TO 1000                                         RHS1   4
      D1#.001                                                          JES23  1
      D2#.002                                                          JES23  2
      D3#.003                                                          JES23  3
C                                                                      RHS1   5
C     LAND                                                             RHS1   6
C                                                                      RHS1   7
      IR#7000002                                                       RHS1   8
      A#R%28<&R%561<&D1                                                JES23  4
      CALL RHS%IR,A<                                                   RHS1  10
      IR#IR&1                                                          RHS1  11
      A#R%2<                                                           JES22  1
      CALL RHSADJ%IR,A<                                                RHS1  13
      A#R%4<                                                           RHS1  14
      IR#IR&1                                                          RHS1  15
      CALL RHSADJ%IR,A<                                                RHS1  16
      IR#IR&1                                                          RHS1  17
      A#R%5<                                                           RHS1  18
       CALL RHSADJ%IR,A<                                               RHS1  19
      IR#7000101                                                       RHS1  20
      A#R%550<                                                         RHS1  21
      CALL RHSADJ%IR,A<                                                RHS1  22
C                                                                      RHS1  23
C                                                                      RHS1  24
C      LABOR                                                           RHS1  25
C                                                                      RHS1  26
      S#0.                                                             RHS1  27
      I1#305                                                           RHS1  28
      I2#325                                                           RHS1  29
      I3#352                                                           RHS1  30
```

```
      IR#7000000&I                                                    RHS1  151
      CALL RHS%IR,A<                                                  RHS1  152
   18 CONTINUE                                                        RHS1  153
C                                                                     RHS1  154
C     SILAGE PLANTING                                                 RHS1  155
C                                                                     RHS1  156
      I1#7                                                            RHS1  157
      DO 20 I#88,93                                                   RHS1  158
      I1#I1&1                                                         RHS1  159
      IF%R%I1<<20,20,19                                               RHS1  160
   19 A#-R%I1<                                                        RHS1  161
      IR#I&7000000                                                    RHS1  162
      CALL RHS%IR,A<                                                  RHS1  163
   20 CONTINUE                                                        RHS1  164
C                                                                     RHS1  165
C     STORAGE                                                         RHS1  166
C                                                                     RHS1  167
      IR#7000064                                                      RHS1  168
      A#R%34<                                                         RHS1  169
      CALL RHS%IR,A<                                                  RHS1  170
      IR#7000102                                                      JES1    1
      A#R%558<                                                        JES1    2
      CALL RHS%IR,A<                                                  JES1    3
      IR#7000100                                                      RHS1  171
      S#0                                                             RHS1  172
      DO 21I#8,13                                                     RHS1  173
   21 S#S&R%I<                                                        RHS1  174
      A#AMAX1%S,R%3<<                                                 RHS1  175
      CALL RHSADJ%IR,A<                                               RHS1  176
      IF %R%563<.GT.0.< GO TO 291                                     JES2    1
      IR#7000104                                                      RHS1  177
      DO 29 I#1,2                                                     RHS1  178
      A#R%28<&R%561<                                                  RHS1  179
      IR#IR&1                                                         RHS1  180
29    CALL RHS%IR,A<                                                  RHS1  181
291   CONTINUE                                                        JES10   1
      IF %R%491<.EQ.0.< GO TO 30                                      RHS1  182
      IR#7000106                                                      RHS1  183
      DO 25 I#1,3                                                     RHS1  184
      HR#R%315&I<*R%335&I<*R%412<                                     RHS1  185
      IR#IR&1                                                         RHS1  186
25    CALL RHS%IR,HR<                                                 RHS1  187
30    IF %R%489<.EQ.0.< GO TO 27                                      RHS1  188
      IR#7000109                                                      RHS1  189
      DO 26 J#1,3                                                     RHS1  190
      A#R%316&J<*R%336&J<*R%321&J<                                    RHS1  191
      IR#IR&1                                                         RHS1  192
26    CALL RHS%IR,A<                                                  RHS1  193
27    IF %R%490<.EQ.0.< GO TO 31                                      RHS1  194
      IR#7000112                                                      RHS1  195
      DO 28 J#1,3                                                     RHS1  196
      A#R%315&J<*R%335&J<*R%412<                                      RHS1  197
      IR#IR&1                                                         RHS1  198
28    CALL RHS%IR,A<                                                  RHS1  199
31    A#0.                                                            RHS1  200
      IF %R%492<.GT.0.< A#R%315<*R%335<*R%408<                        RHS1  201
      IR#7000116                                                      RHS1  202
      CALL RHS%IR,A<                                                  RHS1  203
      RETURN                                                          RHS1  204
1000  IR#7000003                                                      JES15   1
```

```
C                                                                       RHS1   91
C       FALL LAND PREP                                                  RHS1   92
        I1#315                                                          RHS1   93
        I2#335                                                          RHS1   94
        I3#400                                                          RHS1   95
        DO 10 I#39,43                                                   RHS1   96
        I1#I1&1                                                         RHS1   97
        I2#I2&1                                                         RHS1   98
        I3#I3&1                                                         RHS1   99
        A#R%I1<*R%I2<*R%I3<                                             RHS1  100
        IR#I&7000000                                                    RHS1  101
        IF%I.EQ.43< GO TO 10                                            RHS1  102
        CALL RHS%IR,A<                                                  RHS1  103
   10 CONTINUE                                                          RHS1  104
        DO 11 J#1,2                                                     RHS1  105
   11 A#A&R%305&J<*R%325&J<                                             RHS1  106
        CALL RHS%IR,A<                                                  RHS1  107
C       TRACTOR HOURS                                                   RHS1  108
        I1#307                                                          RHS1  109
        I2#327                                                          RHS1  110
        MAX#49                                                          RHS1  111
        I3#376                                                          RHS1  112
        MIN#44                                                          RHS1  113
        DO 13 J#1,2                                                     RHS1  114
        DO 12 I#MIN,MAX                                                 RHS1  115
        I1#I1&1                                                         RHS1  116
        I2#I2&1                                                         RHS1  117
        I3#I3&1                                                         RHS1  118
        A#R%I1<*R%I2<*R%I3<&D2                                          JES23   6
        IR#7000000&I                                                    RHS1  120
        CALL RHS%IR,A<                                                  RHS1  121
   12 CONTINUE                                                          RHS1  122
        I1#315                                                          RHS1  123
        I2#335                                                          RHS1  124
        I3#394                                                          RHS1  125
        MAX#53                                                          RHS1  126
        MIN#50                                                          RHS1  127
   13 CONTINUE                                                          RHS1  128
C                                                                       RHS1  129
C       DRYING CAPACITY                                                 RHS1  130
C                                                                       RHS1  131
        I1#315                                                          RHS1  132
        DO 16 I#60,63                                                   RHS1  133
        A#R%61<*R%63<*R%I1&I-59<                                        RHS1  134
        IR#I&7000000                                                    RHS1  135
   16 CALL RHS%IR,A<                                                    RHS1  136
C                                                                       RHS1  137
C       CORN AND BEAN COMBINE                                           RHS1  138
C                                                                       RHS1  139
        I1#315                                                          RHS1  140
        I2#335                                                          RHS1  141
        I3#320                                                          RHS1  142
        T#R%412<                                                        RHS1  143
        DO 18 I#94,97                                                   RHS1  144
        IF%R%491<.EQ.0.< GO TO 18                                       RHS1  145
        I1#I1&1                                                         RHS1  146
        I2#I2&1                                                         RHS1  147
        I3#I3&1                                                         RHS1  148
        A#R%I1<*R%I2<*T                                                 RHS1  149
        T#R%I3&1<                                                       RHS1  150
```

```
      RETURN
      END
      SUBROUTINE RHS%IR,A<
      COMMON/BND/BNDS%70,3<,IBD2,IRHSF
      COMMON R,IADJ,WORK%50<,BIG
      DIMENSION R%600<
      NW#IADJ&6
      IF%IRHSF .NE. 0< GO TO 1
      IRHSF#1
      WRITE%NW,2<
    2 FORMAT%3HRHS<
      IF %IADJ.EQ.2< WRITE %NW,4<                                    CHNG  10
    4   FORMAT %@  MODIFY@<                                          CHNG  20
    1 WRITE%NW,3< IR,A
    3 FORMAT%4X,1HR,9X,I7,3X,F12.4<
      RETURN
      END
      SUBROUTINE AIJ%I,J,A<
      WRITE%7,1< J,I,A
    1 FORMAT%4X,I7,3X,I7,3X,F12.4<
      RETURN
      END
      SUBROUTINE RHSADJ%IR,A<
      COMMON/BND/BNDS%70,3<,IBD2,IRHSF
      COMMON R,IADJ,WORK%50<,BIG
      DIMENSION R%600<
      IF%IRHSF .NE. 0< GO TO 1
      IRHSF#1
      WRITE%7,2<
    2 FORMAT%3HRHS<
    1 WRITE%7,3< IR,A
    3 FORMAT%4X,1HR,8X,1H*,I7,3X,F12.4<
      RETURN
      END
      SUBROUTINE FINISH%IK<
      COMMON/BND/BNDS%70,3<,IBD2,IRHSF
      K#7
      IF %IK.EQ.2< K#8
      WRITE%K,1<
    1 FORMAT%6HBOUNDS<
      IF %IK.EQ.2< WRITE%K,10<                                       CHNG  10
   10   FORMAT %@  MODIFY@<                                          CHNG  20
      DO 2 I#1,IBD2
      IC#BNDS%I,1<
      IF %IK.EQ.2< GO TO 20
      IF %IC.EQ.8000002.OR.IC.EQ.8000003< GO TO 23
   20 IF %BNDS%I,2<.EQ.BNDS%I,3<< GO TO 22
      IF %BNDS%I,2<.LE.0.< GO TO 21
      WRITE%K,3< IC,BNDS%I,2<
   21 WRITE%K,4< IC,BNDS%I,3<
      GO TO 2
   22 WRITE%K,6< IC,BNDS%I,3<
      GO TO 2
   23 IF %BNDS%I,2<.EQ.BNDS%I,3<< GO TO 25
      IF %BNDS%I,2<.LE.0.  GO TO 24
      WRITE%K,7< IC,BNDS%I,2<
   24 WRITE%K,8< IC,BNDS%I,3<
      GO TO 2
   25 WRITE%K,9< IC,BNDS%I,3<
    7 FORMAT%1X,2HLO,1X,1HB,8X,1H*,I7,3X,F12.4<
```

```
      A#R%564<                                                          JES15   2
      CALL RHS%IR,A<                                                    JES15   3
      IR#IR&1                                                           JES15   4
      A#R%565<                                                          JES15   5
      CALL RHS%IR,A<                                                    JES15   6
      IR#IR&1                                                           RHS1  209
      A#R%551<                                                          RHS1  210
      CALL RHS%IR,A<                                                    RHS1  211
      IR#7000101                                                        RHS1  212
      A#R%552<                                                          RHS1  213
      CALL RHS%IR,A<                                                    RHS1  214
      IR#7000100                                                        RHS1  215
      S#0.                                                              RHS1  216
      DO 24 I#8,13                                                      RHS1  217
   24 S#S&R%I<                                                          RHS1  218
      A#AMAX1%S,R%557<<                                                 RHS1  219
      CALL RHS%IR,A<                                                    RHS1  220
      RETURN                                                            RHS1  221
      END                                                               RHS1  222
      SUBROUTINE START%KL<
      GO TO %100,200<,KL
  100 NROW#116
      WRITE%7,1<
    1 FORMAT %@NAME@,10X,@MATRIX@<
      WRITE%7,11<
   11 FORMAT%4HROWS<
      K#7000001
      WRITE %7,6< K
    6 FORMAT %1X,@N@,2X,I7<
      DO 2 I#2,NROW
      K#7000000&I
    2 WRITE %7,3< K
    3 FORMAT %1X,@L@,2X,I7<
      WRITE%7,4<
    4 FORMAT%7HCOLUMNS <
      RETURN
  200 WRITE%8,1<
      WRITE%8,4<
      WRITE%8,5<
    5 FORMAT %@  MODIFY@<
      RETURN
      END
      SUBROUTINE BNDADJ%ICOL,A,B<
      COMMON/BND/BNDS%70,3<,IBD2,IRHSF
      DIMENSION R%600<
      COMMON R,IADJ,WORK%50<,BIG
      IBD2#IBD2&1
      BNDS%IBD2,1<#ICOL
      BNDS%IBD2,2<#B
      BNDS%IBD2,3<#A
      RETURN
      END
      SUBROUTINE BNDD%ICOL,A,B<                                         BND     1
      COMMON/BND/BNDS%70,3<,IBD2,IRHSF
      COMMON R,IADJ,WORK%50<,BIG
      DIMENSION R%600<
      IBD2#IBD2&1
      BNDS%IBD2,1<#ICOL
      BNDS%IBD2,2<#B
      BNDS%IBD2,3<#A
```

```
      CALL RPT3                                                          BOSS  12
      CALL RPT4                                                          BOSS  13
      CALL RPT56                                                         BOSS  14
      CALL RPT7                                                          BOSS  15
      CALL RPT8                                                          BOSS  16
      CALL RPT9                                                          BOSS  17
      CALL RPT10                                                         BOSS  18
      CALL RPT11                                                         BOSS  19
      CALL RPT12                                                         BOSS  20
      CALL RPT14                                                         JEF34  1
      CALL RPT13                                                         BOSS  21
      STOP                                                               BOSS  22
      END                                                                BOSS  23
      SUBROUTINE VIVDMP                                                  VIVDM  1
      REAL*8 IDENT                                                       CHNG  10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,JEF18  1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,     COMDI  2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,  COMDI  3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<COMDI  4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,    COMDI  5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO      COMDI  6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                   JEF27  1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                  JEF34  1
      INTEGER ROW,COL                                                    VIVDM  3
      REAL*8 SEC /@SECTION@/, ROWS /@1 - ROWS@/, COLU/@2 - COLU@/,       VIVDM  4
     1  EXIT /@EXIT - T@/,                                              VIVDM  5
     $     NUMBER /@ NUMBER@/, BLANK /@ @/, REVISE /@REVISE B@/, X%16<  VIVDM  6
      REAL MINUS /@-@/                                                   VIVDM  7
      CALL REREAD
      NROW#117                                                           VIVDM 10
      NCOL#186                                                           VIVDM 11
      LP#1                                                               VIVDM 12
      IN1#2                                                              VIVDM 13
C LOOK FOR THE ROW SECTION HEADER.                                       VIVDM 14
1     READ%IN1,2,END#3< X                                                VIVDM 15
2     FORMAT %1X,16A8<                                                   VIVDM 16
      IF %X%1<.EQ.SEC .AND. X%2< .EQ.ROWS< GO TO 5                       VIVDM 17
      GO TO 1                                                            VIVDM 18
3     WRITE %6,4< IN1                                                    VIVDM 19
4     FORMAT%@ ROW VALUES AND PRICES NOT FOUND ON FT@,I2,@F001@<          VIVDM 20
      STOP                                                               VIVDM 21
C READ THE ROW DATA.                                                     VIVDM 22
5     READ %IN1,2,END#9< X                                               VIVDM 23
      IF %X%1<.EQ.SEC .AND. X%2<.EQ.COLU< GO TO 20                       VIVDM 24
      IF %X%1<.EQ.NUMBER .OR. X%1<.EQ.BLANK< GO TO 5                     VIVDM 25
      READ %99,7< ROW,VALUE,VS,PRYCE,PS
7     FORMAT %11X,I6,21X,F15.5,A1,31X,F15.5,A1<                          VIVDM 30
      IF %VS.EQ.MINUS< VALUE=-VALUE                                      VIVDM 31
      IF %PS.EQ.MINUS< PRYCE=-PRYCE                                      VIVDM 32
      IF %ROW.EQ.1< GO TO 5                                              VIVDM 33
      IF %ROW.GT.NROW< GO TO 9                                           VIVDM 34
      RSOL%ROW,LP<#VALUE                                                 VIVDM 35
      IF %VALUE.EQ.0< RSOL%ROW,LP<#-PRYCE                                VIVDM 36
      GO TO 5                                                            VIVDM 37
9     WRITE %6,10< IN1                                                   VIVDM 38
10    FORMAT%@ ATTEMPT TO READ TOO MANY ROWS FROM FT@,I2,@F001@<          VIVDM 39
      STOP                                                               VIVDM 40
C READ THE COLUMN DATA.                                                  VIVDM 41
20    READ %IN1,2,END#24< X                                              VIVDM 42
      IF %X%1<.EQ.NUMBER .OR. X%1<.EQ.BLANK< GO TO 20                    VIVDM 43
```

```
      8 FORMAT%1X,2HUP,1X,1HB,8X,1H*,I7,3X,F12.4<
      9 FORMAT%1X,2HFX,1X,1HB,8X,1H*,I7,3X,F12.4<
      2 CONTINUE
      3 FORMAT%1X,2HLO,1X,1HB,9X,I7,3X,F12.4<
      4 FORMAT%1X,2HUP,1X,1HB,9X,I7,3X,F12.4<
      6 FORMAT%1X,2HFX,1X,1HB,9X,I7,3X,F12.4<
        WRITE%K,5<
      5 FORMAT%6HENDATA<
        RETURN
        END
/*
//LKED.SYSLMOD DD DSN=UKU.@AEC01.LOAD,UNIT=3330,VOL=SER=IRCC77,
//       DISP=(NEW,KEEP)                                          ["(OLD, KEEP)" sho
//LKED.SYSIN DD *                                                   the second, thir
  NAME B9(R)
/*
//S3 EXEC PLIXCL
//PLI.SYSIN DD *
 CHANGE: PROC OPTIONS(MAIN); /*CHANGE THE RECORDS FROM U TO FB FORMAT*/ PL1    10
    DCL A INPUT, B OUTPUT, STR CHAR (133) VARYING;                     PL1    20
    ON ENDFILE (A) GO TO OUT;                                          PL1    30
    I=0;                                                               PL1    40
     DO I = 1 TO 1500;                                                 PL1    50
       READ FILE (A) INTO (STR);                                       PL1    60
     PUT FILE(B) EDIT (STR) (A(133));                                  PL1    70
     PUT FILE (MPSOUT) EDIT (STR) (A(133));                            PL1    80
     END;                                                              PL1   100
    OUT: PUT EDIT ('THE NUMBER OF RECORDS TRANSLATED IS',I)(A,F(5));   PL1   110
    RETURN;                                                            PL1   120
    END;                                                               PL1   130
/*
//LKED.SYSLMOD DD DSN=UKU.@AEC01.LOAD,UNIT=3330,
//            VOL=REF=*.S1.LKED.SYSLMOD,DISP=OLD
//LKED.SYSIN DD *
  NAME CHANGE(R)
/*
//S4 EXEC FTG1CL,PARM.FORT=BCD,TIME=1
//FORT.SYSIN DD *
      REAL*8 IDENT                                                     CHNG   10
      COMMON/INI1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,JEF18   1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,     COMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,  COMDI   3
     3AVS%2,8<,AVRT%2,8<,AMDI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<COMDI   4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,    COMDI   5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO      COMDI   6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                   JEF27   1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                  JEF34   1
      COMMON /INI2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,      COMMN   1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6<  COMMN   2
     2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                       JEF8    1
     3,TAB3%16,9<                                                        JEF34   1
      CALL INITL                                                         BOSS    4
      CALL READ                                                          BOSS    5
      CALL VIVDMP                                                        BOSS    6
      CALL COMPT                                                         BOSS    7
      CALL INITL2                                                        BOSS    8
      CALL COMPT2                                                        BOSS    9
      CALL RPT1                                                          BOSS   10
      CALL RPT2                                                          BOSS   11
      CALL ARTSIL                                                        JEF21   1
```

```
  100  CONTINUE                                                                  INITL   7
       IO#6                                                                      INITL   8
       INPT#1                                                                    INITL   9
       IRNK#2                                                                    INITL  10
       RETURN                                                                    INITL  11
       END                                                                       INITL  12
       SUBROUTINE READ                                                           READ    1
       REAL*8 IDENT                                                              CHNG   10
       COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,        JEF18   1
      1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,            COMDI   2
      2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,        COMDI   3
      3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<       COMDI   4
      4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,          COMDI   5
      5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO            COMDI   6
      6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                         JEF27   1
      7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                        JEF34   1
       READ%INPT, 1< IDENT,%HEAD%I<,I#1,10<,MAX                                 READ    3
    1  FORMAT%A7,10A4,I5<                                                       READ    4
       READ%INPT,2< %R%I<,I#1,MAX<                                              READ    5
    2  FORMAT%8F16.2<                                                           READ    6
       IF %R%34<.GT.1000.<GO TO 100                                             JEF23   1
       R%34<#R%34<*1000.                                                        READ    7
  100  NMAX#MAX                                                                 JEF23   2
       RETURN                                                                   READ    9
       END                                                                      READ   10
       SUBROUTINE COMPT                                                         COMPT   1
       REAL*8 IDENT                                                             CHNG   10
       COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,       JEF18   1
      1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,           COMDI   2
      2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,        COMDI   3
      3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<       COMDI   4
      4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,          COMDI   5
      5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO            COMDI   6
      6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                         JEF27   1
      7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                        JEF34   1
       COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,            COMMN   1
      1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6<       COMMN   2
      2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                             JEF8   1
      3,TAB3%16,9<                                                              JEF34   1
       DIMENSION WORK%145,MAC%2,3<                                              JEF34   1
C      CORN ACRES PER HOUR                                                      COMPT   5
       ACHR%1<#R%497<<.%R%497<-R%494<<</50.*%100.-R%528<<                       COMPT   6
       CAPCB#R%498<-%R%498<-R%495<<</50.*%R%528<-100.<                          COMPT   7
C      SOYBEANS ACRES PER HOUR                                                  COMPT   8
       ACHR%2<#R%505<<.%R%505<-R%500<<</15.*%30.-R%531<<                        COMPT   9
       CAPBCDR%506<-%R%506<-R%501<<</15.*%R%531<-30.<                           COMPT  10
C      WHEAT ACRES PER HOUR                                                     COMPT  11
       CNT#0.                                                                   COMPT  12
       AVG#0.                                                                   COMPT  13
       DO 99 I#522,523                                                          COMPT  14
       AVG#AVG&R%I<                                                             COMPT  15
       IF %R%I<.GT.0.< CNT#CNT&1.                                               COMPT  16
  99   CONTINUE                                                                 COMPT  17
       IF %CNT.GT.0.< AVG#AVG/CNT                                               COMPT  18
       ACHR%3<#R%507<<.%R%507<-R%502<<</15.*%30.-AVG<                           COMPT  19
C      COMPUTE SELLING PRICE.  PRICE ARRAY DIMENSION IS 1#WET CORN,             COMPT  20
C      2#DRY CORN, 3#STORED CORN, 4#WET SOYBEANS, 5#DRY SOYBEANS,               COMPT  21
C      6#STORED SOYBEANS, 7#WHEAT, 8#WET DOUBLE CROP SOYBEANS,                  COMPT  22
C      9#DRY DOUBLE CROP SOYBEANS, 10#SILAGE                                    COMPT  23
       PRICE%1<#R%54<-R%51<                                                     COMPT  24
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      IF %X%1<.EQ.REVISE< GO TO 37                                          VIVDM 44
      IF %X%1<.EQ.EXIT< GO TO 30                                            VIVDM 45
      READ %99,21<COL,VALUE,VS,PRYCE,PS
21    FORMAT %11X,I6,5X,F15.5,A1,48X,F15.5,A1<                              VIVDM 50
      IF %VS.EQ.MINUS< VALUE#-VALUE                                         VIVDM 51
      IF %PS.EQ.MINUS< PRYCE#-PRYCE                                         VIVDM 52
      IF %COL.GT.NCOL< GO TO 24                                             VIVDM 53
      IF %COL.LE.16< GO TO 22                                               VIVDM 54
      IF %COL.GE.150.AND.COL.LE.162.OR.COL.EQ.171.OR.COL.EQ.172<GO TO 23    VIVDM 55
      RCOL%COL,LP<#VALUE                                                    VIVDM 56
      GO TO 20                                                              VIVDM 57
22    BCSOL%LP,COL,1<#VALUE                                                 VIVDM 58
      BCSOL%LP,COL,2<#PRYCE                                                 VIVDM 59
      GO TO 20                                                              VIVDM 60
23    COL#COL-127                                                           VIVDM 61
      BCSOL%LP,COL,1<#VALUE                                                 VIVDM 62
      BCSOL%LP,COL,2<#PRYCE                                                 VIVDM 63
      GO TO 20                                                              VIVDM 64
24    WRITE %6,25< IN1                                                      VIVDM 65
25    FORMAT%@ ATTEMPT TO READ TOO MANY COLUMNS FROM FT@,I2,@F001@<          VIVDM 66
      STOP                                                                  VIVDM 67
C WRITE OUT THE STRIPPED SOLUTION.                                          VIVDM 68
30    WRITE %3,31<                                                          VIVDM 69
31    FORMAT %@1ROW SOLUTION@,/@OROW    SOLUTION1    SOLUTION2@<          VIVDM 70
      WRITE %3,32< %I,%RSOL%I,J<,J#1,2<,I#1,116<                            VIVDM 71
32    FORMAT %I4,2F13.2<                                                    VIVDM 72
      WRITE %3,33<                                                          VIVDM 73
33    FORMAT %@1BOUNDED COLUMN SOLUTION@,/16X,@SOLUTION1@,26X,@SOLUTION2VIVDM 74
     1@,/@OCOLUMN        VALUE        PRICE        VALUE        PRICE@<     VIVDM 75
      WRITE %3,34< %I,%%BCSOL%J,I,K<,K#1,2<,J#1,2<,I#1,46<                  VIVDM 76
34    FORMAT %I6,F14.2,3F13.2<                                              VIVDM 77
      WRITE %3,35<                                                          VIVDM 78
35    FORMAT %@1UNBOUNDED COLUMN SOLUTION@,                                 VIVDM 79
     1 /@OCOLUMN    SOLUTION1    SOLUTION2@<                                VIVDM 80
      WRITE%3,36< %I,%RCOL%I,J<,J#1,2<,I#1,179<                             VIVDM 81
36    FORMAT %I6,F14.2,F13.2<                                               VIVDM 82
      RETURN                                                                VIVDM 83
C INCREMENT THE COUNTER AND GET THE SECOND PROBLEM SOLUTION.                VIVDM 84
37    IF %LP.GT.1< GO TO 38                                                 VIVDM 85
      LP#LP&1                                                               VIVDM 86
      GO TO 1                                                               VIVDM 87
38    WRITE %6,39< IN1                                                      VIVDM 88
39    FORMAT %@ATTENPT TO READ MORE THAN TWO SOLUTIONS FROM FT@,I2,         VIVDM 89
     1     @F001@<                                                          VIVDM 90
      STOP                                                                  VIVDM 91
      END                                                                   VIVDM 92
      SUBROUTINE INITL                                                      INITL  1
      REAL*8 IDENT                                                          CHNG  10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,    JEF18  1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,        COMDI  2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,     COMDI  3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<    COMDI  4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,       COMDI  5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO         COMDI  6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                      JEF27  1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                     JEF34  1
      DIMENSION DUMMY%2783<                                                 JEF34  1
      EQUIVALENCE%DUMMY%1<,R%1<<                                            INITL  4
      DO 100 I#1,2783                                                       JEF34  2
      DUMMY%I<#0.                                                           INITL  6
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      PRICE%2<#R%53<                                                    COMPT 25
      PRICE%3<#R%57<                                                    COMPT 26
      PRICE%4<#R%56<-R%52<                                              COMPT 27
      PRICE%5<#R%55<                                                    COMPT 28
      PRICE%6<#R%58<                                                    COMPT 29
      PRICE%7<#R%516<                                                   COMPT 30
      PRICE%8<#R%56<-R%52<                                              COMPT 31
      PRICE%9<#R%55<                                                    COMPT 32
      PRICE%10<#R%15<                                                   COMPT 33
      PRICE%11<#R%58<                                                   COMPT 34
C     COMPUTE ACRES OF CORN, SOYBEANS, SILAGE, WHEAT,AND DOUBLE CROP    COMPT 35
C     SOYBEANS                                                          COMPT 36
C     ACRES ARRAY--FIRST DIMENSION IS SOLUTION.  SECOND DIMENSION IS-   COMPT 37
C     1#WET CORN,2#DRY CORN,3#STORED CORN,4#WET SOYBEANS,5#DRY SOYBEANS,COMPT 38
C     6#STORED SOYBEANS,7#WHEAT,8#WET DOUBLE CROP SOYBEANS,9#DRY DOUBLE COMPT 39
C     CROP SOYBEANS, 10#SILAGE, 11#STORED D.C. SOYBEANS                 COMPT 40
      DO 100 ISOL#1,2                                                   COMPT 41
      DO 101 I#27,44                                                    COMPT 42
      ACRES%ISOL,1<#ACRES%ISOL,1<&RCOL%I,ISOL<                          COMPT 43
      ACRES%ISOL,2<#ACRES%ISOL,2<&RCOL%I&18,ISOL<                       COMPT 44
  101 CONTINUE                                                          COMPT 45
      TEMP#RCOL%112,ISOL<&RCOL%164,ISOL<                                COMPT 46
      IF%ACRES%ISOL,2<.EQ.0.< GO TO 102                                 COMPT 47
      TEMP#TEMP/ACRES%ISOL,2<                                           COMPT 48
      IF%TEMP.EQ.0.< GO TO 102                                          COMPT 49
      ACRES%ISOL,3<#RCOL%112,ISOL</TEMP                                 COMPT 50
      ACRES%ISOL,2<#ACRES%ISOL,2<-ACRES%ISOL,3<                         COMPT 51
  102 DO 103 I#74,91                                                    COMPT 52
      ACRES%ISOL,4<#ACRES%ISOL,4<&RCOL%I,ISOL<                          COMPT 53
      ACRES%ISOL,5<#ACRES%ISOL,5<&RCOL%I&18,ISOL<                       COMPT 54
  103 CONTINUE                                                          COMPT 55
      TEMP#RCOL%113,ISOL<&RCOL%163,ISOL<                                COMPT 56
      IF%ACRES%ISOL,5<.EQ.0.< GO TO 1004                                COMPT 57
      TEMP#TEMP/ACRES%ISOL,5<                                           COMPT 58
      IF%TEMP.EQ.0.< GO TO 1004                                         COMPT 59
      ACRES%ISOL,6<#RCOL%113,ISOL</TEMP                                 COMPT 60
      ACRES%ISOL,5<#ACRES%ISOL,5<-ACRES%ISOL,6<                         COMPT 61
 1004 DO 104 I#110,111                                                  COMPT 62
      ACRES%ISOL,7<#ACRES%ISOL,7<&RCOL%I,ISOL<                          COMPT 63
  104 CONTINUE                                                          COMPT 64
      ACRES%ISOL,8<#RCOL%126,ISOL<                                      COMPT 65
      IF%RCOL%163,ISOL<&RCOL%113,ISOL<.LE.0.< GO TO 1098                COMPT 66
      ACRES%ISOL,9<#RCOL%127,ISOL<*RCOL%163,ISOL</%RCOL%113,ISOL<&      COMPT 67
     1RCOL%163,ISOL<<                                                   COMPT 68
      ACRES%ISOL,11<#RCOL%127,ISOL<*RCOL%113,ISOL</%RCOL%113,ISOL<&     COMPT 69
     1RCOL%163,ISOL<<                                                   COMPT 70
 1098 CONTINUE                                                          COMPT 71
      DO 105 I#114,125                                                  COMPT 72
      ACRES%ISOL,10<#ACRES%ISOL,10<&RCOL%I,ISOL<                        COMPT 73
  105 CONTINUE                                                          COMPT 74
C     TACR ARRAY--TOTAL ACRES OF CORN, SOYBEANS, AND DOUBLE CROP BEANS. COMPT 75
C     FIRST DIMENSION IS SOLUTION, SECOND IS 1#CORN, 2#SOYBEANS, 3#D.C. COMPT 76
C     BEANS.                                                            COMPT 77
      DO 153 I#1,3                                                      COMPT 78
      TACR%ISOL,1<#TACR%ISOL,1<&ACRES%ISOL,I<                           COMPT 79
  153 CONTINUE                                                          COMPT 80
      DO 154 I#4,6                                                      COMPT 81
      TACR%ISOL,2<#TACR%ISOL,2<&ACRES%ISOL,I<                           COMPT 82
  154 CONTINUE                                                          COMPT 83
      DO 155 I#8,9                                                      COMPT 84
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      TACR%ISOL,3<#TACR%ISOL,3<&ACRES%ISOL,I<                          COMPT  85
  155 CONTINUE                                                         COMPT  86
      TACR%ISOL,3<#TACR%ISOL,3<&ACRES%ISOL,11<                         COMPT  87
C     COMPUTE PRODUCTION OF CORN,SOYBEANS,SILAGE,WHEAT, AND OUBLE CROP COMPT  88
C     SOYBEANS                                                         COMPT  89
C     PROD ARRAY IS SAME AS FOR ACRESARRAY                             COMPT  90
      J#64                                                             COMPT  91
      DO 106 I#27,44                                                   COMPT  92
      J#J&7                                                            COMPT  93
      PROD%ISOL,1<#PROD%ISOL,1<&RCOL%I,ISOL<*R%J<                      COMPT  94
  106 CONTINUE                                                         COMPT  95
      PROD%ISOL,2<#RCOL%164,ISOL<                                      COMPT  96
      PROD%ISOL,3<#RCOL%112,ISOL<                                      COMPT  97
      J#191                                                            COMPT  98
      DO 107 I#74,91                                                   COMPT  99
      J#J&6                                                            COMPT100
      PROD%ISOL,4<#PROD%ISOL,4<&RCOL%I,ISOL<*R%J<                      COMPT101
  107 CONTINUE                                                         COMPT102
      PROD%ISOL,5<#RCOL%163,ISOL<                                      COMPT103
      PROD%ISOL,6<#RCOL%113,ISOL<                                      COMPT104
      PROD%ISOL,7<#RCOL%110,ISOL<*R%522<&RCOL%111,ISOL<*R%523<         COMPT105
      PROD%ISOL,8<#RCOL%126,ISOL<*R%535<                               COMPT106
      PROD%ISOL,9<#RCOL%127,ISOL<*R%535<                               COMPT107
      IF%RCOL%113,ISOL<&RCOL%163,ISOL<.LE.0.< GO TO 9898               COMPT108
      PROD%ISOL,11<#PROD%ISOL,9<*RCOL%113,ISOL</%RCOL%113,ISOL<&       COMPT109
     1RCOL%163,ISOL<<                                                  COMPT110
      PROD%ISOL,9<#PROD%ISOL,9<*RCOL%163,ISOL</%RCOL%113,ISOL<&RCOL%163,COMPT111
     1ISOL<<                                                           COMPT112
 9898 CONTINUE                                                         COMPT113
      PROD%ISOL,5<#PROD%ISOL,5<-PROD%ISOL,9<                           COMPT114
      PROD%ISOL,6<#PROD%ISOL,6<-PROD%ISOL,11<                          COMPT115
      DO 108 I#16,125                                                  COMPT116
      PROD%ISOL,10<#PROD%ISOL,10<&RCOL%I,ISOL<*R%14<                   COMPT117
  108 CONTINUE                                                         COMPT118
C     COMPUTE SALES OF CORN,SOYBEANS,SILAGE,WHEAT,AND DOUBLE CROP      COMPT119
C     SOYBEANS.                                                        COMPT120
C     FIRST DIMENSION OF SOLUTION ARRAY IS SAME AS ACRES ARRAY.  FIRST COMPT121
C     10 PLACES OF SECOND DIMENSION ARE SAME AS ACRES.                 COMPT122
      DO 109 I#1,11                                                    COMPT123
      SOL%ISOL,12<#PROD%ISOL,1<*PRICE%I<                               COMPT124
  109 CONTINUE                                                         COMPT125
C     COMPUTE INCOME FROM LAND RENTED OUT                              COMPT126
      SOL%ISOL,12<#BASOL%ISOL,2,1<*R%33<                               COMPT127
C     COMPUTE INCOME FROM COMBINE HIRED OUT                            COMPT128
C     COMBINE HIRED OUT-CORN                                           COMPT129
      DO 110 I#31,136                                                  COMPT130
  110 SOL%ISOL,13<#SOL%ISOL,13<&RCOL%I,ISOL<*R%528<*ACHR%1<*R%48<      COMPT131
     1&RCOL%I&43,ISOL<*R%528<*CAPCB*R%48<                              COMPT132
C     COMBINE HIRED OUT-SOYBEANS                                       COMPT133
      DO 111 I#137,139                                                 COMPT134
  111 SOL%ISOL,14<#SOL%ISOL,14<&RCOL%I,ISOL<*R%531<*ACHR%2<*R%556<    COMPT135
     1&RCOL%I&40,ISOL<*R%531<*CAPBC*R%556<                             COMPT136
C     COMBINE HIRED OUT-WHEAT                                          COMPT137
      SOL%ISOL,15<#RCOL%140,ISOL<*ACHR%3<*R%559<                       COMPT138
C     TOTAL INCOME                                                     COMPT139
      DO 112 I#1,12                                                    COMPT140
  112 SOL%ISOL,16<#SOL%ISOL,16<&SOL%ISOL,I<                            COMPT141
C     VARIABLE COSTS.  VC ARRAY--FIRST DIMENSION IS SOLUTION, SECOND   COMPT142
C     DIMENSION IS PRODUCT (SEE ACRES ARRAY), THIRD DIMENSION IS EXPENSECOMPT143
C     1=FERTILIZER, 2=SEED, 3=HERBICIDE AND INSECTICIDE, 4=FUEL AND    COMPT144
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      1ISOL<<                                                                   COMPT205
       VC%ISOL,2,2<#VC%ISOL,2,2<*RCOL%164,ISOL</%RCOL%112,ISOL<*RCOL%164,       COMPT206
      1ISOL<<                                                                   COMPT207
       VC%ISOL,3,3<#VC%ISOL,2,3<*RCOL%112,ISOL</%RCOL%112,ISOL<&RCOL%164       COMPT208
      1,ISOL<<                                                                  COMPT209
       VC%ISOL,2,3<#VC%ISOL,2,3<*RCOL%164,ISOL</%RCOL%112,ISOL<&RCOL%164       COMPT210
      1,ISOL<<                                                                  COMPT211
       VC%ISOL,3,4<#VC%ISOL,2,4<*RCOL%112,ISOL</%RCOL%112,ISOL<&RCOL%164       COMPT212
      1,ISOL<<                                                                  COMPT213
       VC%ISOL,2,4<#VC%ISOL,2,4<*RCOL%164,ISOL</%RCOL%112,ISOL<&RCOL%164       COMPT214
      1,ISOL<<                                                                  COMPT215
       VC%ISOL,3,5<#VC%ISOL,2,5<*RCOL%112,ISOL</%RCOL%112,ISOL<&RCOL%164       COMPT216
      1,ISOL<<                                                                  COMPT217
       VC%ISOL,2,5<#VC%ISOL,2,5<*RCOL%164,ISOL</%RCOL%112,ISOL<&RCOL%164       COMPT218
      1,ISOL<<                                                                  COMPT219
       VC%ISOL,3,6<#VC%ISOL,2,6<*RCOL%112,ISOL</%RCOL%112,ISOL<&RCOL%164       COMPT220
      1,ISOL<<                                                                  COMPT221
       VC%ISOL,2,6<#VC%ISOL,2,6<*RCOL%164,ISOL</%RCOL%112,ISOL<&RCOL%164       COMPT222
      1,ISOL<<                                                                  COMPT223
       VC%ISOL,3,7<#VC%ISOL,2,7<*RCOL%112,ISOL</%RCOL%112,ISOL<&RCOL%164,      COMPT224
      1ISOL<<                                                                   COMPT225
       VC%ISOL,2,7<#VC%ISOL,2,7<*RCOL%164,ISOL</%RCOL%112,ISOL<&RCOL%164,      COMPT226
      1ISOL<<                                                                   COMPT227
C     FERTILIZER AND SEED COST-SOYBEANS                                         COMPT228
 1130 II#191                                                                    COMPT229
      DO 116 I#74,91                                                            COMPT230
      II#II+                                                                    COMPT231
      K#1                                                                       COMPT232
      DO 117 J#1,2                                                              COMPT233
      K#K&1                                                                     COMPT234
      VC%ISOL,4,J<#VC%ISOL,4,J<&RCOL%1,ISOL<*R%K<                               COMPT235
      VC%ISOL,5,J<#VC%ISOL,5,J<&RCOL%I&18,ISOL<*R&K<                            COMPT236
  117 CONTINUE                                                                  COMPT237
C     INSECTICIDE AND HERBICIDE-SOYBEANS                                        COMPT238
      VC%ISOL,4,3<#VC%ISOL,4,3<&RCOL%1,ISOL<*R%II&3<                            COMPT239
      VC%ISOL,5,3<#VC%ISOL,5,3<&RCOL%I&18,ISOL<*R%II&3<                         COMPT240
C     FUEL AND REPAIR COST-SOYBEANS                                             COMPT241
      IF%R%531<.EQ.0.< GO TO 118                                                COMPT242
      VC%ISOL,4,4<#VC%ISOL,4,4<&RCOL%1,ISOL<*%R%530<*R%II</R%531<&              COMPT243
     +R%529<<                                                                   COMPT244
      VC%ISOL,5,4<#VC%ISOL,5,4<&RCOL%I&18,ISOL<*%R%530<*R%II</R%531<&           COMPT245
     1R%529<<                                                                   COMPT246
C     DRYING COSTS-SOYBEANS  1#DRYING AT ELEVATOR  2#DRYING ON FARM             COMPT247
  118 VC%ISOL,4,5<#VC%ISOL,4,5<&RCOL%1,ISOL<*R%II<*%R%II&5<-R%560<<            COMPT248
      VC%ISOL,5,5<#VC%ISOL,5,5<&RCOL%I&19,ISOL<*R%II<*%R%II&5<-R%560<<          COMPT249
C     CREDIT AND MISC. COSTS-SOYBEANS                                           COMPT250
      VC%ISOL,4,6<#VC%ISOL,4,6<&RCOL%1,ISOL<*%R%II&4<&R%65<<                    COMPT251
      VC%ISOL,5,6<#VC%ISOL,5,6<&RCOL%I&18,ISOL<*%R%II&4<&R%65<<                 COMPT252
  116 CONTINUE                                                                  COMPT253
C     CUSTOM COMBINE HIRED IN SOYBEANS                                          COMPT254
      DO 195 I#1,2                                                              COMPT255
      DO 195 J#1,3                                                              COMPT256
  195 WAC%I,J<#0.                                                               COMPT257
      IBEG#73                                                                   COMPT258
      DO 196 I#1,3                                                              COMPT259
      IBEG#IBEG&1                                                               COMPT260
      DO 197 J#IBEG,91,2                                                        COMPT261
      WAC%1,I<#WAC%1,I<&RCOL%J,ISOL<                                            COMPT262
      WAC%2,I<#WAC%2,I<&RCOL%J&1,ISOL<                                          COMPT263
  197 CONTINUE                                                                  COMPT264
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C       REPAIR, 5#DRYING, 6#CREDIT AND MISC., 7#CUSTOM COMBINE HIRED IN    COMPT145
C       FERTILIZER AND SEED-CORN                                           COMPT146
        II#64                                                              COMPT147
        DO 113 I#27,44                                                     COMPT148
        II#II&7                                                            COMPT149
        K#II&3                                                             COMPT150
        DO 114 J#1,2                                                       COMPT151
        VC%ISOL,1,J<#VC%ISOL,1,J<&RCOL%I,ISOL<*R%K<                       COMPT152
        VC%ISOL,2,J<#VC%ISOL,2,J<&RCOL%I&18,ISOL<*R%K<                    COMPT153
        K#K-1                                                              COMPT154
  114   CONTINUE                                                           COMPT155
C       INSECTICIDE AND HERBICIDE-CORN                                     COMPT156
        VC%ISOL,1,3<#VC%ISOL,1,3<&RCOL%I,ISOL<*R%II&4<&R%II&5<<            COMPT157
        VC%ISOL,2,3<#VC%ISOL,2,3<&RCOL%I&18,ISOL<*R%II&4<&R%II&5<<         COMPT158
C       FUEL AND REPAIR COSTS-CORN                                         COMPT159
        IF %R%528<.EQ.0.< GO TO 115                                        COMPT160
        VC%ISOL,1,4<#VC%ISOL,1,4<&RCOL%I,ISOL<*R%527<*R%II</R%528<&R%526<COMPT161
       1<                                                                  COMPT162
        VC%ISOL,2,4<#VC%ISOL,2,4<&RCOL%I&18,ISOL<*R%527<*R%II</R%528<&     COMPT163
       1R%526<<                                                            COMPT164
C       DRYING COSTS-CORN  1#DRYING AT ELEVATOR  2#DRYING ON FARM          COMPT165
  115   VC%ISOL,1,5<#VC%ISOL,1,5<&RCOL%I,ISOL<*R%II<*%R%II&1<-R%59<<      COMPT166
        VC%ISOL,2,5<#VC%ISOL,2,5<&RCOL%I&18,ISOL<*R%II<*%R%II&1<-R%59<<    COMPT167
C       CREDIT AND MISC COSTS                                              COMPT168
        VC%ISOL,1,6<#VC%ISOL,1,6<&RCOL%I,ISOL<*R%II&6<&R%65<<              COMPT169
        VC%ISOL,2,6<#VC%ISOL,2,6<&RCOL%I&18,ISOL<*R%II&6<&R%65<<           COMPT170
  113   CONTINUE                                                           COMPT171
C       CUSTOM COMBINE HIRED IN-CORN                                       COMPT172
        DO 191 I#1,2                                                       COMPT173
        DO 191 J#1,3                                                       COMPT174
  191   WAC%I,J<#0.                                                        COMPT175
        IBEG#26                                                            COMPT176
        DO 192 I#1,3                                                       COMPT177
        IBEG#IBEG&1                                                        COMPT178
        DO 193 J#IBEG,44,3                                                 COMPT179
        WAC%1,I<#WAC%1,I<&RCOL%J,ISOL<                                     COMPT180
        WAC%2,I<#WAC%2,I<&RCOL%J&18,ISOL<                                  COMPT181
  193   CONTINUE                                                           COMPT182
        TEMP#WAC%1,I<&WAC%2,I<                                             COMPT183
        IF %TEMP.LE.0.< GO TO 192                                          COMPT184
        WAC%1,I<#WAC%1,I</TEMP                                             COMPT185
        WAC%2,I<#WAC%2,I</TEMP                                             COMPT186
  192   CONTINUE                                                           COMPT187
        DO 194 I#128,130                                                   COMPT188
        J#I-127                                                            COMPT189
        VC%ISOL,1,7<#VC%ISOL,1,7<&RCOL%I,ISOL<*R%528<*ACHR%1<*R%47<*       COMPT190
       1WAC%1,J<                                                           COMPT191
        VC%ISOL,2,7<#VC%ISOL,2,7<&RCOL%I,ISOL<*R%528<*ACHR%1<*R%47<*       COMPT192
       1WAC%2,J<                                                           COMPT193
  194   CONTINUE                                                           COMPT194
C       DRYING COSTS COMPLETED                                             COMPT195
        VC%ISOL,1,5<#VC%ISOL,1,5<*R%64</10.                                COMPT196
        VC%ISOL,2,5<#VC%ISOL,2,5<*R%60</10.                                COMPT197
C       APPORTION DRY CORN COSTS BETWEEN DRY AND STORED SALES              COMPT198
        IF %%RCOL%112,ISOL<&RCOL%164,ISOL<<.EQ.0.< GO TO 1130              COMPT199
        VC%ISOL,3,1<#VC%ISOL,2,1<*RCOL%112,ISOL</%RCOL%112,ISOL<&RCOL%164,COMPT200
       1ISOL<<                                                             COMPT201
        VC%ISOL,2,1<#VC%ISOL,2,1<*RCOL%164,ISOL</%RCOL%112,ISOL<&RCOL%164,COMPT202
       1ISOL<<                                                             COMPT203
        VC%ISOL,3,2<#VC%ISOL,2,2<*RCOL%112,ISOL</%RCOL%112,ISOL<&RCOL%164,COMPT204
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      VC%ISOL,7,J<#VC%ISOL,7,J<&RCOL%I,ISOL<*R%517&J<                    COMPT325
  120 CONTINUE                                                           COMPT326
C     HERBICIDE AND INSECTICIDE COST-WHEAT                               COMPT327
      VC%ISOL,7,3<#VC%ISOL,7,3<&RCOL%I,ISOL<*R%520<                     COMPT328
C     FUEL AND REPAIR COSTS-WHEAT                                        COMPT329
      IF%R%534<.EQ.0.< GO TO 121                                         COMPT330
      VC%ISOL,7,4<#VC%ISOL,7,4<&RCOL%I,ISOL<*%R%533<*R%11</R%534<&R%532<COMPT331
     1<                                                                  COMPT332
C     CREDIT AND MISC. COSTS-WHEAT                                       COMPT333
  121 VC%ISOL,7,6<#VC%ISOL,7,6<&RCOL%I,ISOL<*%R%521<&R%65<<             COMPT334
  119 CONTINUE                                                           COMPT335
C     CUSTOM COMBINE HIRED IN-WHEAT                                      COMPT336
      VC%ISOL,7,7<#RCOL%140,ISOL<*ACHR%3<*R%45<                         UPDAT1 2
C     FERTILIZER,SEED,AND INSECTICIDE & HERBICIDE COST-DOUBLE CROP BEANSCOMPT338
      DO 122 J#1,3                                                       COMPT339
      VC%ISOL,8,J<#VC%ISOL,8,J<&RCOL%126,ISOL<*R%536&J<                 COMPT340
      VC%ISOL,9,J<#VC%ISOL,9,J<&RCOL%127,ISOL<*R%536&J<                 COMPT341
  122 CONTINUE                                                           COMPT342
C     FUEL AND REPAIR COSTS-DOUBLE CROP BEANS                            COMPT343
      IF %R%531<.EQ.0.< GO TO 123                                        COMPT344
      VC%ISOL,8,4<#VC%ISOL,8,4<&RCOL%126,ISOL<*%R%535<*R%530</R%531<&   COMPT345
     1R%529<<                                                            COMPT346
      VC%ISOL,9,4<#VC%ISOL,9,4<&RCOL%127,ISOL<*%R%535<*R%530</R%531<&   COMPT347
     1R%529<<                                                            COMPT348
C     DRYING COSTS-DOUBLE CROP BEANS                                     COMPT349
  123 VC%ISOL,8,5<#VC%ISOL,8,5<&RCOL%126,ISOL<*R%535<*%R%536<-R%560<<*  COMPT350
     1%R%554</10.<                                                       COMPT351
      VC%ISOL,9,5<#VC%ISOL,9,5<&RCOL%127,ISOL<*R%535<*%R%536<-R%560<<*  COMPT352
     1%R%554</10.<                                                       COMPT353
C     CREDIT AND INTREST COST-DOUBLE CROP BEANS                          COMPT354
      IF %R%531<.EQ.0.< GO TO 1240                                       COMPT355
      VC%ISOL,8,6<#VC%ISOL,8,6<&RCOL%126,ISOL<*%R%540<&R%65<<           COMPT356
      VC%ISOL,9,6<#VC%ISOL,9,6<&RCOL%127,ISOL<*%R%540<&R%65<<           COMPT357
C     CUSTOM COMBINE COST-DOUBLE CROP BEANS                              COMPT358
      VC%ISOL,8,7<#VC%ISOL,8,7<&RCOL%136,ISOL<*R%531<*ACHR%2<*R%555<*WTWCOMPT359
      VC%ISOL,9,7<#VC%ISOL,9,7<&RCOL%136,ISOL<*R%531<*ACHR%2<*R%555<*WTDCOMPT360
 1240 DO 224 I#1,7                                                       COMPT361
      IF %%RCOL%113,ISOL<&RCOL%163,ISOL<<.EQ.0.< GO TO 224              COMPT362
      VC%ISOL,11,I<#VC%ISOL,9,I<*RCOL%113,ISOL</%RCOL%113,ISOL<&        COMPT363
     1RCOL&163,ISOL<<                                                    COMPT364
      VC%ISOL,9,I<#VC%ISOL,9,I<*RCOL%163,ISOL< /%RCOL%113,ISOL<&        COMPT365
     1RCOL%163,ISOL<<                                                    COMPT366
  224 CONTINUE                                                           COMPT367
C     FERTILIZER AND SEED COSTS%SILAGE                                   COMPT368
      K#54                                                               COMPT369
      DO 124 I#14,16,2                                                   COMPT370
      K#K&2                                                              COMPT371
      DO 125 J#1,2                                                       COMPT372
      VC%ISOL,10,J<#VC%ISOL,10,J<&%RCOL&I,ISOL<&RCOL%I&1,ISOL<<*R%K-J<  COMPT373
  125 CONTINUE                                                           COMPT374
C     HERBICIDE AND INSECTICIDE-SILAGE                                   COMPT375
      VC%ISOL,10,3<#VC%ISOL,10,3<&%RCOL&I,ISOL<&RCOL%I&1,ISOL<<*%R%K<   COMPT376
     1&R%K&1<<                                                           COMPT377
C     FUEL AND REPAIR COSTS-SILAGE                                       COMPT378
      VC%ISOL,10,4<#VC%ISOL,10,4<&RCOL&I,ISOL<&RCOL%I&1,ISOL<<*%R%525<&COMPT379
     1R&526<<                                                            COMPT380
C     CREDIT AND MISC. COSTS-SILAGE                                      COMPT381
      VC%ISOL,10,6<#VC%ISOL,10,6<&%RCOL&I,ISOL<&RCOL%I&1,ISOL<<*%R%K&2< COMPT382
     1&R%65<<                                                            COMPT383
  124 CONTINUE                                                           COMPT384
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      TEMP#WAC%1,I<&WAC%2,I<                                                    COMPT265
      IF%TEMP.LE.0.< GO TO 196                                                  COMPT266
      WAC%1,I<#WAC%1,I</TEMP                                                    COMPT267
      WAC%2,I<#WAC%2,I</TEMP                                                    COMPT268
  196 CONTINUE                                                                  COMPT269
      WAC%1,3<#WAC%1,3<*TEMP                                                    COMPT270
      WAC%2,3<#WAC%2,3<*TEMP                                                    COMPT271
      WTW#RCOL%126,ISOL<                                                        COMPT272
      WTD#RCOL%127,ISOL<                                                        COMPT273
      TEMP#TEMP&WTW&WTD                                                         COMPT274
      IF %TEMP.EQ.0.< GO TO 1960                                                COMPT275
      WAC%1,3<#WAC%1,3</TEMP                                                    COMPT276
      WAC%2,3<#WAC%2,3</TEMP                                                    COMPT277
      WTW#WTW/TEMP                                                              COMPT278
      WTD#WTD/TEMP                                                              COMPT279
 1960 DO 198 I#134,136                                                          COMPT280
      J#I-133                                                                   COMPT281
      VC%ISOL,4,7<#VC%ISOL,4,7<&RCOL%I,ISOL<*R%531<*ACHR%2<*R%555<*             COMPT282
     1WAC%1,J<                                                                  COMPT283
      VC%ISOL,5,7<#VC%ISOL,5,7<&RCOL%I,ISOL<*R%531<*ACHR%2<*R%555<*             COMPT284
     1WAC%2,J<                                                                  COMPT285
  198 CONTINUE                                                                  COMPT286
C     COMPLETE DRYING COSTS                                                     COMPT287
      VC%ISOL,4,5<#VC%ISOL,4,5<*R%553</10.                                      COMPT288
      VC%ISOL,5,5<#VC%ISOL,5,5<*R%554</10.                                      COMPT289
C     APPORTION DRY SOYBEANS TO DRY AND STORED SALES                            COMPT290
      IF %%RCOL%113,ISOL<&RCOL%163,ISOL<<.EQ.0.< GO TO 1160                     COMPT291
      VC%ISOL,6,1<#VC%ISOL,5,1<*RCOL%113,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT292
     1ISOL<<                                                                    COMPT293
      VC%ISOL,5,1<#VC%ISOL,5,1<*RCOL%163,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT294
     1ISOL<<                                                                    COMPT295
      VC%ISOL,6,2<#VC%ISOL,5,2<*RCOL%113,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT296
     1ISOL<<                                                                    COMPT297
      VC%ISOL,5,2<#VC%ISOL,5,2<*RCOL%163,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT298
     1ISOL<<                                                                    COMPT299
      VC%ISOL,6,3<#VC%ISOL,5,3<*RCOL%113,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT300
     1ISOL<<                                                                    COMPT301
      VC%ISOL,5,3<#VC%ISOL,5,3<*RCOL%163,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT302
     1ISOL<<                                                                    COMPT303
      VC%ISOL,6,4<#VC%ISOL,5,4<*RCOL%113,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT304
     1ISOL<<                                                                    COMPT305
      VC%ISOL,5,4<#VC%ISOL,5,4<*RCOL%163,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT306
     1ISOL<<                                                                    COMPT307
      VC%ISOL,6,5<#VC%ISOL,5,5<*RCOL%113,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT308
     1ISOL<<                                                                    COMPT309
      VC%ISOL,5,5<#VC%ISOL,5,5<*RCOL%163,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT310
     1ISOL<<                                                                    COMPT311
      VC%ISOL,6,6<#VC%ISOL,5,6<*RCOL%113,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT312
     1ISOL<<                                                                    COMPT313
      VC%ISOL,5,6<#VC%ISOL,5,6<*RCOL%163,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT314
     1ISOL<<                                                                    COMPT315
      VC%ISOL,6,7<#VC%ISOL,5,7<*RCOL%113,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT316
     1ISOL<<                                                                    COMPT317
      VC%ISOL,5,7<#VC%ISOL,5,7<*RCOL%163,ISOL</%RCOL%113,ISOL<&RCOL%163,        COMPT318
     1ISOL<<                                                                    COMPT319
C     FERTILIZER AND SEED COST-WHEAT                                            COMPT320
 1160 II#521                                                                    COMPT321
      DO 119 I#110,111                                                          COMPT322
      II#II&1                                                                   COMPT323
      DO 120 J#1,2                                                              COMPT324
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      AVC%ISOL,6<#%VC%ISOL,6,8<&VC%ISOL,11,8<</%ACRES%ISOL,6<&          COMPT445
     1ACRES%ISOL,11<<                                                  COMPT446
  138 IF %ACRES%ISOL,7<.EQ.0.<GO TO 139                                 COMPT447
      AVC%ISOL,7<#VC%ISOL,7,8</ACRES%ISOL,7<                            COMPT448
  139 IF %ACRES%ISOL,10<.EQ.0.< GO TO 140                               COMPT449
      AVC%ISOL,8<#VC%ISOL,10,8</ACRES%ISOL,10<                          COMPT450
C     AVERAGE YIELD                                                     COMPT451
  140 DO 141 I#1,3                                                      COMPT452
      IF %ACRES%ISOL,I<.EQ.0.< GO TO 141                                COMPT453
      AVY%ISOL,I<#PROD%ISOL,I</ACRES%ISOL,I<                            COMPT454
  141 CONTINUE                                                          COMPT455
      DO 142 I#4,5                                                      COMPT456
      IF %%ACRES%ISOL,I<&ACRES%ISOL,I&4<<.EQ.0.< GO TO 142              COMPT457
      AVY%ISOL,I<#%PROD%ISOL,I<&PROD%ISOL,I&4<</%ACRES%ISOL,I<&ACRES    COMPT458
     1%ISOL,I&4<<                                                       COMPT459
  142 CONTINUE                                                          COMPT460
      IF %%ACRES%ISOL,6<&ACRES%ISOL,11<<.EQ.0.< GO TO 143               COMPT461
      AVY%ISOL,6<#%PROD%ISOL,6<&PROD%ISOL,11<</%ACRES%ISOL,6<&          COMPT462
     1ACRES%ISOL,11<<                                                   COMPT463
  143 IF %ACRES%ISOL,7<.GT.0.< AVY%ISOL,7<#PROD%ISOL,7</ACRES%ISOL,7<   COMPT464
      IF%ACRES%ISOL,10<.NE.0.< AVY%ISOL,9<#PROD%ISOL,10</ACRES%ISOL,10< COMPT465
      IF %ACRES%ISOL,10<.EQ.0.< AVY%ISOL,8<#0.                          COMPT466
C     AVERAGE SALES PER ACRE                                            COMPT467
      DO 144 I#1,3                                                      COMPT468
      IF %ACRES%ISOL,I<.EQ.0.< GO TO 144                                COMPT469
      AVS%ISOL,I<#SOL%ISOL,I</ACRES%ISOL,I<                             COMPT470
  144 CONTINUE                                                          COMPT471
      DO 145 I#4,5                                                      COMPT472
      IF%%ACRES%ISOL,I<&ACRES%ISOL,I&4<<.EQ.0.< GO TO 145               COMPT473
      AVS%ISOL,I<#%SOL%ISOL,I<&SOL%ISOL,I&4<</%ACRES%ISOL,I<&ACRES%ISOL,COMPT474
     1I&4<<                                                             COMPT475
  145 CONTINUE                                                          COMPT476
      IF %%ACRES%ISOL,6<&ACRES%ISOL,11<<.EQ.0.< GO TO 146               COMPT477
      AVS%ISOL,6<#%SOL%ISOL,6<&SOL%ISOL,11<</%ACRES%ISOL,6<&           COMPT478
     1ACRES%ISOL,11<<                                                   COMPT479
  146 IF %ACRES%ISOL,7<.GT.0.< AVS%ISOL,7<#SOL%ISOL,7</ACRES%ISOL,7<   COMPT480
      IF %ACRES%ISOL,10<.EQ.0.< GO TO 1470                              COMPT481
      AVS%ISOL,8<#SOL%ISOL,10</ACRES%ISOL,10<                           COMPT482
C     AVERAGE RETURN                                                    COMPT483
 1470 DO 147 I#1,8                                                      COMPT484
  147 AVRT%ISOL,I<#AVS%ISOL,I<-AVC%ISOL,I<                              COMPT485
C     AVERAGE MOISTURE PER ACRE                                         COMPT486
      AMOI%ISOL,1<#0.                                                   COMPT487
      J#64                                                              COMPT488
      DO 148 I#45,62                                                    COMPT489
      J#J&7                                                             COMPT490
      AMOI%ISOL,1<#AMOI%ISOL,1<&RCOL%1,ISOL<*R%J<*R%J&1<                COMPT491
  148 CONTINUE                                                          COMPT492
      IF%%RCOL%112,ISOL<&RCOL%164,ISOL<<.EQ.0.< GO TO 149               COMPT493
      AMOI%ISOL,1<#AMOI%ISOL,1</%RCOL%112,ISOL<&RCOL%164,ISOL<<         COMPT494
      GO TO 220                                                         COMPT495
  149 AMOI%ISOL,1<#0.                                                   COMPT496
  220 AMOI%ISOL,2<#0.                                                   COMPT497
      J#191                                                             COMPT498
      DO 221 I#92,109                                                   COMPT499
      J#J&6                                                             COMPT500
      AMOI%ISOL,2<#AMOI%ISOL,2<&RCOL%I,ISOL<*R%J<*R%J&5<                COMPT501
  221 CONTINUE                                                          COMPT502
      AMOI%ISOL,2<#AMOI%ISOL,2<&RCOL%127,ISOL<*R%535<*R%536<            COMPT503
      IF %%RCOL%113,ISOL<&RCOL%165,ISOL<<.EQ.0.< GO TO 222              COMPT504
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C       CUSTOM COMBINE HIRED IN-SILAGE                                          COMPT385
        DO 199 I#142,143                                                        COMPT386
        VC%ISOL,10,7<#VC%ISOL,10,7<&RCOL%I,ISOL<*R%510<*R%46<                   COMPT387
 199    CONTINUE                                                                COMPT388
C       TOTAL ALLOCATED VARIABLE COSTS BY SOLUTION BY PRODUCT                   COMPT389
        DO 127 I#1,11                                                           COMPT390
        DO 127 J#1,7                                                            COMPT391
        VC%ISOL,I,8<#VC%ISOL,I,8<&VC%ISOL,I,J<                                 COMPT392
 127    CONTINUE                                                                COMPT393
C       TOTAL ALLOCATED VARIABLE COSTS BY SOLUTION BY EXPENSE %TOTAL INCLU      COMPT394
        DO 128 J#1,8                                                            COMPT395
        DO 128 I#1,11                                                           COMPT396
        VC%ISOL,12,J<#VC%ISOL,12,J<&VC%ISOL,I,J<                               COMPT397
 128    CONTINUE                                                                COMPT398
C       AVCT ARRAY#ALLOCATED VARIABLE EXPENSE.  FIRST DIMENSION IS              COMPT399
C       SOLUTION, SECOND IS EXPENSE                                             COMPT400
        DO 129 J#1,4                                                            COMPT401
 129    AVCT%ISOL,J<#VC%ISOL,12,J<                                              COMPT402
        AVCT%ISOL,5<#VC%ISOL,2,5<&VC%ISOL,3,5<&VC%ISOL,5,5<&VC%ISOL,6,5<&       COMPT403
       1VC%ISOL,9,5<&VC%ISOL,11,5<                                              COMPT404
        AVCT%ISOL,6<#VC%ISOL,1,5<&VC%ISOL,4,5<&VC%ISOL,8,5<                     COMPT405
        AVCT%ISOL,7<#VC%ISOL,12,6<                                              COMPT406
        AVCT%ISOL,8<#VC%ISOL,12,7<                                              COMPT407
        AVCT%ISOL,9<#VC%ISOL,12,8<                                              COMPT408
C       UNALLOCATED VARIABLE EXPENSES-                                          COMPT409
C       LAND RENTAL                                                             COMPT410
        UVCT%ISOL,1<#UVCT%ISOL,1<&BCSOL%ISOL,3,1<*R%31<                         COMPT411
C       HIRED LABOR                                                             COMPT412
        DO 130 I#4,16                                                           COMPT413
 130    UVCT%ISOL,2<#UVCT%ISOL,2<&BCSOL%ISOL,I,1<*R%69<                         COMPT414
C       CUSTOM COMBINING IN-CORN                                                COMPT415
C       TOTAL                                                                   COMPT416
        DO 134 I#1,2                                                            COMPT417
        UVCT%ISOL,3<#UVCT%ISOL,3<&UVCT%ISOL,I<                                  COMPT418
 134    CONTINUE                                                                COMPT419
C       FIXED COSTS                                                             COMPT420
C       MACHINERY                                                               COMPT421
        FCT%ISOL,1<#R%524<                                                      COMPT422
C       LABOR                                                                   COMPT423
        FCT%ISOL,2<#R%67<                                                       COMPT424
C       LAND                                                                    COMPT425
        FCT%ISOL,3<#R%29<*R%28<&R%561<*R%562<                                   COMPT426
C       TOTAL                                                                   COMPT427
        DO 135 I#1,3                                                            COMPT428
        FCT%ISOL,4<#FCT%ISOL,4<&FCT%ISOL,I<                                     COMPT429
 135    CONTINUE                                                                COMPT430
        TCSTS%ISOL<#AVCT%ISOL,9<&UVCT%ISOL,3<&FCT%ISOL,4<                       COMPT431
        PROFT%ISOL<#SOL%ISOL,16<-TCSTS%ISOL<                                    COMPT432
C       AVERAGE VARIABLE COSTS- SECOND DIMENSION PRODUCT WITH DOUBLE CROP        COMPT433
C       BEANS ADDED INTO WEB AND DRY SOYBEANS                                   COMPT434
        DO 136 I#1,3                                                            COMPT435
        IF%ACRES%ISOL,I<.EQ.0.< GO TO 136                                       COMPT436
        AVC%ISOL,I<#VC%ISOL,I,8</ACRES%ISOL,I<                                  COMPT437
 136    CONTINUE                                                                COMPT438
        DO 137 I#4,5                                                            COMPT439
        IF%%ACRES%ISOL,I<&ACRES%ISOL,I&4<<.EQ.0.<  GO TO 137                    COMPT440
        AVC%ISOL,I<#%VC%ISOL,I,8<&VC%ISOL,I&4,8<</%ACRES%ISOL,I<&ACRES          COMPT441
       1%ISOL,I&4<<                                                             COMPT442
 137    CONTINUE                                                                COMPT443
        IF%%ACRES%ISOL,6<&ACRES%ISOL,11<<.EQ.0.< GO TO 138                      COMPT444
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      DO 208 I#44,53                                                    COMPT565
      IF %RSOL%I,ISOL<.GE.0.0.< GO TO 208                               COMPT566
      J#I-1                                                             COMPT567
      RSHAD%J,ISOL<#-RSOL%I,ISOL<                                       COMPT568
  208 CONTINUE                                                          COMPT569
      DO 209 I#53,55                                                    COMPT570
      IF %RSOL%I&60,ISOL<.GE.0.0.< GO TO 209                            COMPT571
      RSHAD%I,ISOL<#-RSOL%I&60,ISOL<                                    COMPT572
  209 CONTINUE                                                          COMPT573
      DO 210 I#56,58                                                    COMPT574
      IF %RSOL%54&I,ISOL<.GE.0.0.< GO TO 210                            COMPT575
      RSHAD%I,ISOL<#-RSOL%54&I,ISOL<                                    COMPT576
  210 CONTINUE                                                          COMPT577
      DO 225 I#75,77                                                    COMPT578
      IF %RSOL%32&I,ISOL<.GE.0.0.< GO TO 225                            COMPT579
      RSHAD%I,ISOL<#-RSOL%32&I,ISOL<                                    COMPT580
  225 CONTINUE                                                          COMPT581
      DO 226 I#78,80                                                    COMPT582
      IF %RSOL%I&17,ISOL<.GE.0.0.< GO TO 226                            COMPT583
      RSHAD%I,ISOL<#-RSOL%I&17,ISOL<                                    COMPT584
  226 CONTINUE                                                          COMPT585
      DO  228 I#81,82                                                   COMPT586
      IF %BCSOL%ISOL,44&I-81,2<.GE.0.0.< GO TO 228                      JEF31  1
      RSHAD%I,ISOL<#-BCSOL%ISOL,44&I-81,2<                              JEF31  2
  228 CONTINUE                                                          COMPT589
      IF %RSOL%110,ISOL<.LT.0.0.< RSHAD%59,ISOL<#-RSOL%116,ISOL<        COMPT590
      DO 211 I#44,45                                                    COMPT591
      IF %BCSOL%ISOL,I,2<.GE.0.0< GO TO 211                             COMPT592
      J#I&16                                                            COMPT593
      RSHAD%J,ISOL<#-BCSOL%ISOL,I,2<                                    COMPT594
  211 CONTINUE                                                          COMPT595
      IF %RSOL%2,ISOL<.LT.0.0.< RSHAD%62,ISOL<#-RSOL%2,ISOL<            COMPT596
      DO 212 I#2,3                                                      COMPT597
      IF %BCSOL%ISOL,I,2<.GE.0.0.< GO TO 212                            COMPT598
      J#I&61                                                            COMPT599
      RSHAD%J,ISOL<#-BCSOL%ISOL,I,2<                                    COMPT600
  212 CONTINUE                                                          COMPT601
      DO 213 I#60,63                                                    COMPT602
      IF %RSOL%I,ISOL<.GE.0.0.< GO TO 213                               COMPT603
      J#I&5                                                             COMPT604
      RSHAD%J,ISOL<#-RSOL%I,ISOL<                                       COMPT605
  213 CONTINUE                                                          COMPT606
      DO 223 I#69,71                                                    COMPT607
      IF %RSOL%I-66,ISOL<.GE.0.0.< GO TO 223                            COMPT608
      RSHAD%I,ISOL<#-RSOL%I-66,ISOL<                                    COMPT609
  223 CONTINUE                                                          COMPT610
      IF %RSOL%101,ISOL<.LT.0.0.< RSHAD%72,ISOL<#-RSOL%101,ISOL<        COMPT611
      IF %RSOL%100,ISOL<.LT.0.0.< RSHAD%73,ISOL<#-RSOL%100,ISOL<        COMPT612
      IF %RSOL%102,ISOL<.LT.0.0.< RSHAD%74,ISOL<#-RSOL%102,ISOL<        COMPT613
      IF %RSOL%64,ISOL<.LT.0.0.<RSHAD%83,ISOL<#-RSOL%64,ISOL<           JEF27  1
  100 CONTINUE                                                          COMPT614
C     FIELD HOURS AVAILABLE--TABLE 10                                   COMPT615
      DO 160 I#1,2                                                      COMPT616
      RHS%I<#R%305&I<*R%325&I<                                          COMPT617
  160 CONTINUE                                                          COMPT618
      DO 161 I#3,8                                                      COMPT619
      RHS%I<#R%305&I<*R%3.581<*R%.06<                                   COMPT620
  161 CONTINUE                                                          COMPT621
      DO 162 I#9,12                                                     COMPT622
      RHS%I<#R%307&I<*R%327&I<*R%.92&I<                                 COMPT623
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      AMOI%ISOL,2<#AMOI%ISOL,2</%RCOL%113,ISOL<&RCOL%163,ISOL<<          COMPT505
      GO TO 150                                                         COMPT506
  222 AMOI%ISOL,2<#0.                                                   COMPT507
C     COMBH ARRAY--HOURS OF COMBINING HIRED OUT. FIRST DIMENSION IS     COMPT508
C     SOLUTION, SECOND DIMENSION IS PRODUCT 1#CORN,2#SOYBEANS,3# WHEAT  COMPT509
  150 DO 151 I#131,133                                                  COMPT510
      COMBH%ISOL,1<#COMBH%ISOL,1<&RCOL%I,ISOL<                          COMPT511
     1&RCOL%I&43,ISOL<                                                  COMPT512
  151 CONTINUE                                                          COMPT513
      DO 152 I#137,139                                                  COMPT514
      COMBH%ISOL,2<#COMBH%ISOL,2<&RCOL%I,ISOL<                          COMPT515
     1&RCOL%I&40,ISOL<                                                  COMPT516
  152 CONTINUE                                                          COMPT517
      COMBH%ISOL,3<#RCOL%141,ISOL<                                      COMPT518
C     TCOMB ARRAY--TOTAL HOURS OF COMBINING HIRED OUT.  DIMENSION IS    COMPT519
C     SOLUTION.                                                         COMPT520
      DO 156 I#1,3                                                      COMPT521
      TCOMB%ISOL<#TCOMB%ISOL<&COMBH%ISOL,I<                             COMPT522
  156 CONTINUE                                                          COMPT523
C     TCOMBI ARRAY.  TOTAL HOURS COMBININB HIRED IN.  DIMENSION IS      COMPT524
C     SOLUTION.                                                         COMPT525
      DO 157 I#128,130                                                  COMPT526
      TCOMBI%ISOL<#TCOMBI%ISOL<&RCOL%I,ISOL<                            COMPT527
  157 CONTINUE                                                          COMPT528
      DO 158 I#134,136                                                  COMPT529
      TCOMBI%ISOL<#TCOMBI%ISOL<&RCOL%I,ISOL<                            COMPT530
  158 CONTINUE                                                          COMPT531
      TCOMBI%ISOL<#TCOMBI%ISOL<&RCOL%140,ISOL<                          COMPT532
      DO 159 I#142,143                                                  COMPT533
      TCOMBI%ISOL<#TCOMBI%ISOL<&RCOL%I,ISOL<                            COMPT534
  159 CONTINUE                                                          COMPT535
      IF %RSOL%18,ISOL<.GT.0.< GO TO 201                                COMPT536
      DO 200 I#1,2                                                      COMPT537
      RSHAD%I,ISOL<#-RSOL%18,ISOL<                                      COMPT538
  200 CONTINUE                                                          COMPT539
  201 DO 202 I#6,18                                                     COMPT540
      IF%RSOL%I,ISOL<.GE.0.< GO TO 202                                  COMPT541
      J#I-3                                                             COMPT542
      RSHAD%J,ISOL<#-RSOL%I,ISOL<                                       COMPT543
  202 CONTINUE                                                          COMPT544
      DO 203 I#19,24                                                    COMPT545
      IF %RSOL%I,ISOL<.GE.0.< GO TO 203                                 COMPT546
      J#I-3                                                             COMPT547
      RSHAD%J,ISOL<#-RSOL%I,ISOL<                                       COMPT548
  203 CONTINUE                                                          COMPT549
      IF%RSOL%43,ISOL<.GE.0.< GO TO 205                                 COMPT550
      DO 204 I#1,2                                                      COMPT551
      J#21&I                                                            COMPT552
      RSHAD%J,ISOL<#-RSOL%43,ISOL<                                      COMPT553
  204 CONTINUE                                                          COMPT554
  205 DO 206 I#39,43                                                    COMPT555
      IF %RSOL%I,ISOL<.GE.0.< GO TO 206                                 COMPT556
      J#I-15                                                            COMPT557
      RSHAD%J,ISOL<#-RSOL%I,ISOL<                                       COMPT558
  206 CONTINUE                                                          COMPT559
      DO 207 I#25,38                                                    COMPT560
      IF %RSOL%I,ISOL<.GE.0.< GO TO 207                                 COMPT561
      J#I&4                                                             COMPT562
      RSHAD%J,ISOL<#-RSOL%I,ISOL<                                       COMPT563
  207 CONTINUE                                                          COMPT564
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      AWORK%1&L,J<#WORK%9<                                                COMPT680
      DO 180 I#1,2                                                        COMPT681
      M#R%413<&L                                                          COMPT682
      IF%I.EQ.2<M#R%415<&L                                                COMPT683
      IF%M.GT.11< GO TO 180                                               COMPT684
      IF%M.GT.7< M#7                                                      COMPT685
      AWORK%1&M,J<#AWORK%1&M,J<&WORK%9&I<                                 COMPT686
      IF %M.GT.5< GO TO 180                                               JEF34  7
      AWRK%1&M,J<#AWRK%1&M,J<&WORK%12&I<                                  JEF34  8
180   CONTINUE                                                            COMPT687
179   CONTINUE                                                            COMPT688
      DO 300 J#1,12                                                       JEF34  9
      IPLNT#%J-1</2                                                       JEF34 10
      SWRK%IPLNT&1,J<#WORK%12<                                            JEF34 11
      DO 301 I#1,2                                                        JEF34 12
      M#R%411&I*2<&IPLNT                                                  JEF34 13
      IF %M.GT.5< GO TO 301                                               JEF34 14
      SWRK%M&1,J<#SWRK%M&1,J<&WORK%12&I<                                  JEF34 15
301   CONTINUE                                                            JEF34 16
300   CONTINUE                                                            JEF34 17
      DO 181 I#1,14                                                       JEF34 18
      WORK%I<#0.                                                          COMPT690
181   CONTINUE                                                            COMPT691
      DO 182 I#1,8                                                        COMPT692
      A#R%422&I<*R%458&I<                                                 COMPT693
      IF %A.EQ.0.< GO TO 182                                              COMPT694
      WORK%I<#1./A                                                        COMPT695
182   CONTINUE                                                            COMPT696
      DO 183 I#1,4                                                        COMPT697
      WORK%9<#WORK%9<&WORK%I<*R%422&I<*R%472&I<                           COMPT698
      WORK%12<#WORK%12<&WORK%I<*R%422&I<                                  JEF34 19
183   CONTINUE                                                            COMPT699
      DO 184 I#1,2                                                        COMPT700
      WORK%10<#WORK%10<&WORK%I&4<*R%426&I<*R%476&I<                       COMPT701
      WORK%11<#WORK%11<&WORK%I&6<*R%428&I<*R%478&I<                       COMPT702
      WORK%13<#WORK%13<&WORK%I&4<*R%426&I<                                JEF34 20
      WORK%14<#WORK%14<&WORK%I&6<*R%428&I<                                JEF34 21
184   CONTINUE                                                            COMPT703
      DO 185 J#1,18                                                       COMPT704
      L#%J-1</3                                                           COMPT705
      BWORK%1&L,J<#WORK%9<                                                COMPT706
      BWRK%L&1,J<#WORK%12<                                                JEF34 22
      DO 186 I#1,2                                                        COMPT707
      M#R%414<&L                                                          COMPT708
      IF %I.EQ.2< M#R%416<&L                                              COMPT709
      IF %M.GT.11< GO TO 186                                              COMPT710
      IF %M.GT.7< M#7                                                     COMPT711
      BWORK%1&M,J<#BWORK%1&M,J<&WORK%9&I<                                 COMPT712
      IF %M.GT.5< GO TO 186                                               JEF34 23
      BWRK%M&1,J<#BWRK%M&1,J<&WORK%12&I<                                  JEF34 24
186   CONTINUE                                                            COMPT713
185   CONTINUE                                                            COMPT714
      DO 187 I#1,6                                                        COMPT715
      WORK%I<#0.                                                          COMPT716
      C#R%416&I<*R%434&I<                                                 COMPT717
      IF %C.EQ.0.< GO TO 187                                              COMPT718
      WORK%I<#1./C                                                        COMPT719
      CLPRP#CLPRP&WORK%I<*R%416&I<*R%466&I<                               COMPT720
187   CONTINUE                                                            COMPT721
      DO 188 I#1,6                                                        COMPT722
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162   CONTINUE                                                          COMPT624
      RHS%13<#R%320<*R%340<*R%405<                                      COMPT625
      I1#307                                                            COMPT626
      I2#327                                                            COMPT627
      I3#345                                                            COMPT628
      DO 163 I#14,19                                                    COMPT629
      I1#I1&1                                                           COMPT630
      I2#I2&1                                                           COMPT631
      I3#I3&1                                                           COMPT632
      RHS%I<#R%I1<*R%I2<*R%I3<                                          COMPT633
163   CONTINUE                                                          COMPT634
      I1#307                                                            COMPT635
      I2#327                                                            COMPT636
      DO 164 I#20,27                                                    COMPT637
      I1#I1&1                                                           COMPT638
      I2#I2&1                                                           COMPT639
      RHS%I<#R%I1<*R%I2<*R%407<                                         COMPT640
164   CONTINUE                                                          COMPT641
      IF %R%493<.EQ.0.< GO TO 166                                       COMPT642
      DO 165 I#1,2                                                      COMPT643
      RHS%27&I<#RHS%27&I<&R%315&I<*R%335&I<*R%411<                      COMPT644
165   CONTINUE                                                          COMPT645
166   IF %R%490<.EQ.0.< GO TO 168                                       COMPT646
      DO 167 I#1,3                                                      COMPT647
      RHS%29&I<#RHS%29&I<&R%315&I<*R%335&I<*R%412<                      COMPT648
167   CONTINUE                                                          COMPT649
168   IF %R%489<.EQ.0.< GO TO 170                                       COMPT650
      DO 169 I#1,3                                                      COMPT651
      RHS%32&I<#RHS%32&I<&R%316&I<*R%336&I<                             COMPT652
     1*R%321&I<                                                         COMPT653
169   CONTINUE                                                          COMPT654
170   IF %R%491<.EQ.0.< GO TO 174                                       COMPT655
      DO 171 I#1,3                                                      COMPT656
      RHS%35&I<#RHS%35&I<&R%315&I<*R%335&I<*R%412<                      COMPT657
171   CONTINUE                                                          COMPT658
172   DO 173 I#1,3                                                      COMPT659
      RHS%38&I<#RHS%38&I<&R%316&I<*R%336&I<                             COMPT660
     1*R%321&I<                                                         COMPT661
173   CONTINUE                                                          COMPT662
174   DO 175 I#1,14                                                     JEF34  2
      WORK%I<#0.                                                        COMPT664
175   CONTINUE                                                          COMPT665
      DO 176 I#1,8                                                      COMPT666
      A#R%422&I<*R%440&I<                                               COMPT667
      IF %A.EQ.0.< GO TO 176                                            COMPT668
      WORK%I<#1.0/A                                                     COMPT669
176   CONTINUE                                                          COMPT670
      DO 177 I#1,4                                                      COMPT671
      WORK%9<#WORK%9<&WORK%I<*R%422&I<*R%472&I<                         COMPT672
      WORK%12<#WORK%12<&WORK%I<*R%422&I<                                JEF34  3
177   CONTINUE                                                          COMPT673
      DO 178 I#1,2                                                      COMPT674
      WORK%10<#WORK%10<&WORK%I&4<*R%426&I<*R%476&I<                     COMPT675
      WORK%11<#WORK%11<&WORK%I&6<*R%428&I<*R%478&I<                     COMPT676
      WORK%13<#WORK%13<&WORK%I&4<*R%426&I<                              JEF34  4
      WORK%14<#WORK%14<&WORK%I&6<*R%428&I<                              JEF34  5
178   CONTINUE                                                          COMPT677
      DO 179 J#1,18                                                     COMPT678
      L#%J-1</3                                                         COMPT679
      AWRK%L&1,J<#WORK%12<                                              JEF34  6
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      2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                    JEF8    1
      3,TAB3%16,9<                                                     JEF34   2
       COMMON/IT3/DWHT%6<                                              COMPT   4
       DIMENSION W%3<                                                  COMPT   5
       DO 100 I#1,2                                                    COMPT   6
       DO 101 J#1,6                                                    COMPT   7
       DO 102 K#1,4                                                    COMPT   8
       TACRE%I,J,K<#0.                                                 COMPT   9
       TACRE%3,J,K<#0.                                                 COMPT  10
       TPROD%I,J,K<#0.                                                 COMPT  11
  102  CONTINUE                                                        COMPT  12
  101  CONTINUE                                                        COMPT  13
  100  CONTINUE                                                        COMPT  14
       DO 103 I#1,2                                                    COMPT  15
       GO TO %104,105<,I                                               COMPT  16
  104  IBEG#27                                                         COMPT  17
       IEND#44                                                         COMPT  18
       IM#64                                                           COMPT  19
       MM#7                                                            COMPT  20
       GO TO 106                                                       COMPT  21
  105  IBEG#74                                                         COMPT  22
       IEND#91                                                         COMPT  23
       IM#191                                                          COMPT  24
       MM#6                                                            COMPT  25
  106  J#0                                                             COMPT  26
       DO 107 L#IBEG,IEND,3                                            COMPT  27
       J#J&1                                                           COMPT  28
       KK#L-1                                                          COMPT  29
       DO 108 K#1,3                                                    COMPT  30
       KK#KK&1                                                         COMPT  31
       IM#IM&MM                                                        COMPT  32
       TACRE%I,J,K<#.RCOL%KK,IRNK<&RCOL%KK&18,IRNK<                    COMPT  33
       TPROD%I,J,K<#TACRE%I,J,K<*R%IM<                                 COMPT  34
  108  CONTINUE                                                        COMPT  35
  107  CONTINUE                                                        COMPT  36
       DO 109 J#1,6                                                    COMPT  37
       DO 110 K#1,3                                                    COMPT  38
       TACRE%I,J,4<#TACRE%I,J,4<&TACRE%I,J,K<                          COMPT  39
       TPROD%I,J,4<#TPROD%I,J,4<&TPROD%I,J,K<                          COMPT  40
  110  CONTINUE                                                        COMPT  41
  109  CONTINUE                                                        COMPT  42
  103  CONTINUE                                                        COMPT  43
       J#0                                                             COMPT  44
       DO 114 I#114,125,2                                              COMPT  45
       J#J&1                                                           COMPT  46
       KK#I-1                                                          COMPT  47
       DO 115 K#1,2                                                    COMPT  48
       KK#KK&1                                                         COMPT  49
       TACRE%3,J,K<#RCOL%KK,IRNK<                                      COMPT  50
  115  CONTINUE                                                        COMPT  51
  114  CONTINUE                                                        COMPT  52
       DO 116 I#1,6                                                    COMPT  53
       DO 117 J#1,2                                                    COMPT  54
       TACRE%3,I,3<#TACRE%3,I,3<&TACRE%3,I,J<                          COMPT  55
  117  CONTINUE                                                        COMPT  56
  116  CONTINUE                                                        COMPT  58
       DO 111 I#1,2                                                    COMPT  59
       DO 112 J#1,4                                                    COMPT  60
       DO 113 K#1,6                                                    COMPT  61
       STACR%I,J<#STACR%I,J<&TACRE%I,K,J<                              COMPT  62
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      WORK%I<#0.                                                        COMPT723
      C#R%416&I<*R%452&I<                                               COMPT724
      IF %C.EQ.0.< GO TO 188                                            COMPT725
      WORK%I<#1./C                                                      COMPT726
      SLPRP#SLPRP&WORK%I<*R%416&I<*R%466&I<                             COMPT727
  188 CONTINUE                                                          COMPT728
      DO 189 I#1,4                                                      COMPT729
      IF%R%448&I<.LE.0.< GO TO 189                                      COMPT730
      WLPRP#WLPRP&R%480&I</R%448&I<                                     COMPT731
  189 CONTINUE                                                          COMPT732
      DO 190 I#1,3                                                      COMPT733
      C#R%540&I<*R%543&I<                                               COMPT734
      IF %C.EQ.0.< GO TO 190                                            COMPT735
      WORK%I<#1./C                                                      COMPT736
      DCPRP#DCPRP&WORK%I<*R%540&I<*R%546&I<                             COMPT737
  190 CONTINUE                                                          COMPT738
      CCLAB# %R%499<-R%496<</50.                                        COMPT739
      CCLAB#CCLAB*%100.-R%528<<&R%499<                                  COMPT740
      CHLAB#CCLAB                                                       COMPT741
      CCLAB#CCLAB-R%49<                                                 COMPT742
      CCLAB#AMAX1%CCLAB,0.<                                             COMPT743
      SCLAB#%R%508<-R%503<</%50-35.<                                    COMPT744
      SCLAB#SCLAB*%100.-70.-R%531<<&R%508<                              COMPT745
      SHLAB#SCLAB                                                       COMPT746
      SCLAB#SCLAB-R%49<                                                 COMPT747
      SCLAB#AMAX1%SCLAB,0.<                                             COMPT748
      WCLAB#%R%509<-R%504<</15.                                         COMPT749
      WCLAB#R%509<&%30.-R%534<<*WCLAB                                   COMPT750
      WHLAB#WCLAB                                                       COMPT751
      WCLAB#WCLAB-R%49<                                                 COMPT752
      WCLAB=AMAX1%0.,WCLAB<                                             COMPT753
C     SIHLAB#R%511<                                                     COMPT754
      SICLAB#R%511<-R%50<                                               COMPT755
      SICLAB=AMAX1%0.,SICLAB<                                           COMPT756
      RETURN                                                            COMPT757
      END                                                               COMPT758
      SUBROUTINE INITL2                                                 INITL  1
      COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,     COMMN  1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6< COMMN  2
     2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                      JEF8   1
     3,TAB3%16,9<                                                       JEF34  1
      DIMENSION DUMMY%692<                                              JEF34  1
      EQUIVALENCE%DUMMY%1<,TACRE%1,1,1<<                                INITL  4
      DO 100 I#1,692                                                    JEF34  2
      DUMMY%I<#0.                                                       INITL  6
  100 CONTINUE                                                          INITL  7
      RETURN                                                            INITL  8
      END                                                               INITL  9
      SUBROUTINE COMPT2                                                 COMPT  1
      REAL*8 IDENT                                                      CHNG  10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,JEF18  1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,    COMDI  2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<, COMDI  3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<COMDI  4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,   COMDI  5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO     COMDI  6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                  JEF27  1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                 JEF34  1
      COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,     COMMN  1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6< COMMN  2
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      GO TO 127                                                          COMPT131
  130 PPLNT%10<#PPLNT%10<&TACRE%2,I,4<                                   COMPT132
  127 CONTINUE                                                           COMPT134
  131 J#0                                                                JEF13   1
      DO 204 I#114,125,2                                                 JEF13   2
      J#J&1                                                              JEF13   3
      SPLNT%J<#SPLNT%J<&RCOL%I,IRNK<                                     JEF13   4
      SHAR%1<#SHAR%1<&RCOL%I,IRNK<                                       JEF8    5
  204 CONTINUE                                                           JEF8    6
      J#0                                                                JEF8    7
      DO 205 I#115,125,2                                                 JEF8    8
      J#J&1                                                              JEF8    9
      SPLNT%J<#SPLNT%J<&RCOL%I,IRNK<                                     JEF11   5
      SHAR%2<#SHAR%2<&RCOL%I,IRNK<                                       JEF8   11
  205 CONTINUE                                                           JEF8   12
      DO 206 I#110,111                                                   JEF8   13
      WHAR#WHAR&RCOL%I,IRNK<                                             JEF8   14
  206 CONTINUE                                                           JEF8   15
      DO 207 I#126,127                                                   JEF8   16
  207 DCHAR#DCHAR&RCOL%I,IRNK<                                           JEF8   17
      DO 132 LP#1,4                                                      JEF8   18
      GO TO %133,134,135,136<,LP                                         COMPT136
  133 MIN#19                                                             COMPT137
      MAX#24                                                             COMPT138
      I1#16                                                              COMPT139
      GO TO 137                                                          COMPT140
  134 MIN#39                                                             COMPT141
      MAX#42                                                             COMPT142
      I1#30                                                              COMPT143
      GO TO 137                                                          COMPT144
  135 MIN#25                                                             COMPT145
      MAX#30                                                             COMPT146
      I1#11                                                              COMPT147
      GO TO 137                                                          COMPT148
  136 MIN#31                                                             COMPT149
      MAX#38                                                             COMPT150
      I1#11                                                              COMPT151
  137 DO 138 I#MIN,MAX                                                   COMPT152
      J#I-I1                                                             COMPT153
      IF %RSOL%I,IRNK<.GE.0.< GO TO 139                                  COMPT154
      SHAD%J<#-RSOL%I,IRNK<                                              COMPT155
      DD%J<#RHS%J<                                                       COMPT156
      DDD%J<#0.                                                          COMPT157
      GO TO 138                                                          COMPT158
  139 DDD%J<#RSOL%I,IRNK<                                                COMPT159
      DD%J<#RHS%J<-DDD%J<                                                COMPT160
  138 CONTINUE                                                           COMPT161
  132 CONTINUE                                                           COMPT162
      WT1#0.                                                             COMPT163
      WT2#0.                                                             COMPT164
      WT3#0.                                                             COMPT165
      IF%%RHS%1<&RHS%2<&RHS%13<<.EQ.0.< GO TO 1320                       COMPT166
      WT1#RHS%1</%RHS%1<&RHS%2<&RHS%13<<                                 COMPT167
      WT2#RHS%2</%RHS%1<&RHS%2<&RHS%13<<                                 COMPT168
      WT3#RHS%13</%RHS%1<&RHS%2<&RHS%13<<                                COMPT169
 1320 IF %RSOL%43,IRNK<.GE.0.< GO TO 140                                 COMPT170
      SHAD%1<#-RSOL%43,IRNK<                                             COMPT171
      SHAD%2<#-RSOL%43,IRNK<                                             COMPT172
      SHAD%13<#-RSOL%43,IRNK<                                            COMPT173
      DD%1<#RHS%1<                                                       COMPT174
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      STPRD%I,J<#STPRD%I,J<&TPROD%I,K,J<                                  COMPT  63
  113 CONTINUE                                                           COMPT  64
  112 CONTINUE                                                           COMPT  65
  111 CONTINUE                                                           COMPT  66
      WT#R%306<*R%326<&R%307<*R%327<&R%320<*R%340<                       COMPT  67
      J#305                                                              COMPT  68
      K#325                                                              COMPT  69
      DO 118 I#1,2                                                       COMPT  70
      J#J&1                                                              COMPT  71
      K#K&1                                                              COMPT  72
      IF %WT.LE.0.< GO TO 118                                            COMPT  73
      APRP%1,I<#R%J<*R%K<*RCOL%20,IRNK</WT                               COMPT  74
      APRP%2,I<#R%J<*R%K<*RCOL%67,IRNK</WT                               COMPT  75
  118 CONTINUE                                                           COMPT  76
      DO 119 I#3,8                                                       COMPT  77
      J#I&18                                                             COMPT  78
      K#I&65                                                             COMPT  79
      APRP%1,I<#RCOL%J,IRNK<                                             COMPT  80
      APRP%2,I<#RCOL%K,IRNK<                                             COMPT  81
  119 CONTINUE                                                           COMPT  82
      DO 120 I#12,14                                                     COMPT  83
      J#I&5                                                              COMPT  84
      K#I&52                                                             COMPT  85
      APRP%1,I<#RCOL%J,IRNK<                                             COMPT  86
      APRP%2,I<#RCOL%K,IRNK<                                             COMPT  87
  120 CONTINUE                                                           COMPT  88
      APRP%2,11<#RCOL%63,IRNK<                                           COMPT  89
      IF %WT.LE.0.< GO TO 1210                                           COMPT  90
      APRP%1,15<#R%320<*R%340<*RCOL%20,IRNK</WT                          COMPT  91
      APRP%2,15<#R%320<*R%340<*RCOL%67,IRNK</WT                          COMPT  92
 1210 DO 121 I#1,15                                                      COMPT  93
      DO 122 J#1,2                                                       COMPT  94
      APRP%3,I<#APRP%3,I<&APRP%J,I<                                      COMPT  95
  122 CONTINUE                                                           COMPT  96
  121 CONTINUE                                                           COMPT  97
      K1#R%413<                                                          COMPT  98
      K2#R%414<                                                          COMPT  99
      K3#R%415<                                                          COMPT100
      K4#R%416<                                                          COMPT101
      IF %R%413<.GE.13< GO TO 1250                                       COMPT102
      DO 123 I#1,6                                                       COMPT103
      IF %%I&K1<.GT.7< GO TO 124                                         COMPT107
      PPLNT%I&K1&2<#PPLNT%I&K1&2<&TACRE%1,I,4<&RCOL%112&I*2,IRNK<        JEF11   1
     1&RCOL%113&I*2,IRNK<                                                JEF11   2
      GO TO 125                                                          COMPT109
  124 PPLNT%10<#PPLNT%10<&TACRE%1,I,4<&RCOL%112&I*2,IRNK<&RCOL%113&I*2,  JEF11   3
     AIRNK<                                                              JEF11   4
  125 IF %%I&K3<.GT.7< GO TO 126                                         JEF20   1
      PPLNT%I&K3&2<#PPLNT%I&K3&2<&TACRE%1,I,4<                           COMPT114
      GO TO 123                                                          COMPT115
  126 PPLNT%10<#PPLNT%10<&TACRE%1,I,4<                                   COMPT116
  123 CONTINUE                                                           COMPT118
 1250 IF %R%414<.GT.13< GO TO 131                                        COMPT119
      DO 127 I#1,6                                                       COMPT120
      IF%%K2&I<.GT.7< GO TO 128                                          COMPT124
      PPLNT%I&K2&2<#PPLNT%I&K2&2<&TACRE%2,I,4<                           COMPT125
      GO TO 129                                                          COMPT126
  128 PPLNT%10<#PPLNT%10<&TACRE%2,I,4<                                   COMPT127
  129 IF %%I&K4<.GT.7< GO TO 130                                         JEF19   1
      PPLNT%I&K4&2<#PPLNT%I&K4&2<&TACRE%2,I,4<                           COMPT130
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      TAB%I,1<#R%305&I<*R%325&I<*R%K&I<                                  COMPT233
  152 CONTINUE                                                           COMPT234
      DO 203 I#1,6                                                       COMPT235
  203 DWHT%I<#0.                                                         COMPT236
      IF %R%492<.NE.0.< DWHT%1<#R%315<*R%335<*R%408<                     COMPT237
      DWHT%2<#RCOL%140,IRNK<                                             COMPT238
      DWHT%3<#RCOL%141,IRNK<                                             COMPT239
      DWHT%4<#RCOL%173,IRNK<                                             COMPT240
      IF %RSOL%116,IRNK<.GE.0.< DWHT%5<#RSOL%116,IRNK<                   COMPT241
      IF %RSOL%116,IRNK<.LT.0.< DWHT%6<#-RSOL%116,IRNK<                  COMPT242
      WT1#0.                                                             COMPT243
      WT2#0.                                                             COMPT244
      WT3#0.                                                             COMPT245
      IF%%R%306<*R%326<*R%353<&R%307<*R%327<*R%354<&R%320<*R%340<*R%389<JEF31   2
     1<.EQ.0.< GO TO 1520                                                JEF31   3
      WT1#R%306<*R%326<*R%353</%R%306<*R%326<*R%353<&R%307<*R%327<*      JEF31   4
     1R%354<&R%320<*R%340<*R%389<<                                       JEF31   5
      WT2#R%307<*R%327<*R%354</%R%306<*R%326<*R%353<&R%307<*R%327<*      JEF31   6
     1R%354<&R%320<*R%340<*R%389<<                                       JEF31   7
      WT3#R%320<*R%340<*R%389</%R%306<*R%326<*R%353<&R%307<*R%327<*      JEF31   8
     1R%354<&R%320<*R%340<*R%389<<                                       JEF31   9
 1520 TAB%1,2<#BCSOL%IRNK,35,1<*WT1                                      COMPT250
      TAB%2,2<#BCSOL%IRNK,35,1<*WT2                                      COMPT251
      TAB%15,2<#BCSOL%IRNK,35,1<*WT3                                     COMPT252
      DO 153 I#3,14                                                      COMPT253
      TAB%I,2<#BCSOL%IRNK,I&20,1<                                        COMPT254
  153 CONTINUE                                                           COMPT255
      DO 154 I#1,15                                                      COMPT256
      TAB%I,3<#TAB%I,1<-TAB%I,2<                                         COMPT257
  154 CONTINUE                                                           COMPT258
      DO 155 I#1,15                                                      COMPT259
      K#363                                                              COMPT260
      IF %I.GT.10< K#K&16                                                COMPT261
      TAB%I,4<#R%305&I<*R%325&I<*R%K&I<                                  COMPT262
  155 CONTINUE                                                           COMPT263
      IF %BCSOL%IRNK,16,1<.LE.0..AND.BCSOL%IRNK,16,2<.GE.0.< GO TO 156   COMPT264
      TAB%1,5<#BCSOL%IRNK,16,1<                                          COMPT265
      TAB%2,5<#BCSOL%IRNK,16,1<                                          COMPT266
      TAB%15,5<#BCSOL%IRNK,16,1<                                         COMPT267
  156 IF %BCSOL%IRNK,16,1<.LT.0..AND.BCSOL%IRNK,16,2<.LT.0.< GO TO 157   COMPT268
      TAB%1,5<#BCSOL%IRNK,16,1<*WT1                                      COMPT269
      IF%%R%306<*R%326<*R%364<&R%307<*R%327<*R%365<&R%320<*R%340<*R%394<JEF31  10
     1<.EQ.0.< GO TO 157                                                 JEF31  11
      WT1#R%306<*R%326<*R%364</%R%306<*R%326<*R%364<&R%307<*R%327<*      JEF31  12
     1R%365<&R%320<*R%340<*R%394<<                                       JEF31  13
      WT2#R%307<*R%327<*R%365</%R%306<*R%326<*R%364<&R%307<*R%327<*      JEF31  14
     1R%365<&R%320<*R%340<*R%394<<                                       JEF31  15
      WT3#R%320<*R%340<*R%394</%R%306<*R%326<*R%364<&R%307<*R%327<*      JEF31  16
     1R%365<&R%320<*R%340<*R%394<<                                       JEF31  17
      TAB%2,5<#BCSOL%IRNK,16,1<*WT2                                      COMPT270
      TAB%15,5<#BCSOL%IRNK,16,1<*WT3                                     COMPT271
  157 DO 158 I#3,14                                                      COMPT272
      TAB%I,5<#BCSOL%IRNK,I&1,1<                                         COMPT273
  158 CONTINUE                                                           COMPT274
      DO 159 I#1,15                                                      COMPT275
      TAB%I,6<#TAB%I,5<&TAB%I,5<                                         COMPT276
  159 CONTINUE                                                           COMPT277
      DO 160 I#1,15                                                      COMPT278
      TAB%I,7<#R%70<*TAB%I,5<&TAB%I,3<                                   COMPT279
  160 CONTINUE                                                           COMPT280
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      DD%2<#RHS%2<                                                    COMPT175
      DD%13<#RHS%13<                                                  COMPT176
      GO TO 141                                                       COMPT177
  140 DDD%1<#WT1*RSOL%43,IRNK<                                        COMPT178
      DDD%2<#WT2*RSOL%43,IRNK<                                        COMPT179
      DDD%13<#WT3*RSOL%43,IRNK<                                       COMPT180
      DD%1<#RHS%1<-DDD%1<                                             COMPT181
      DD%2<#RHS%2<-DDD%2<                                             COMPT182
      DD%13<#RHS%13<-DDD%13<                                          COMPT183
  141 IF %R%493<.EQ.0.< GO TO 1440                                    COMPT184
      DO 142 I#1,2                                                    COMPT185
      IF %BCSOL%IRNK,I&43,2<.GE.0.< GO TO 143                         COMPT186
      SHAD%27&I<#-BCSOL%IRNK,I&43,2<                                  COMPT187
      DD%27&I<#RHS%27&I<                                              JEF17  1
      GO TO 142                                                       COMPT189
  143 DDD%27&I<#RHS%27&I<-BCSOL%IRNK,I&43,1<                          COMPT190
      DD%27&I<#BCSOL%IRNK,I&43,1<                                     COMPT191
  142 CONTINUE                                                        COMPT192
 1440 IF %R%490<.GT.0.< GO TO 1441                                    UPDAT1 3
      IF %R%491<.GT.0.< GO TO 1460                                    UPDAT1 4
 1441 DO 144 I=1,3                                                    UPDAT1 5
      IF %RSOL%112&I,IRNK<.GE.0.< GO TO 145                           COMPT195
      SHAD%29&I<#-RSOL%112&I,IRNK<                                    COMPT196
      DD%29&I<#RHS%29&I<-RCOL%136&I,IRNK<                             COMPT197
      GO TO 144                                                       COMPT198
  145 DDD%29&I<#RSOL%112&I,IRNK<                                      JEF17  2
      DD%29&I<#RCOL%167&I,IRNK<                                       COMPT200
  144 CONTINUE                                                        COMPT201
 1460 IF %R%489<.GT.0.< GO TO 1461                                    UPDAT1 6
      IF %R%491<.GT.0.< GO TO 1480                                    UPDAT1 7
 1461 DO 146 I=1,3                                                    UPDAT1 8
      IF %RSOL%109&I,IRNK<.GE.0.< GO TO 147                           COMPT204
      SHAD%32&I<#-RSOL%109&I,IRNK<                                    COMPT205
      DD%32&I<#RHS%32&I<-RCOL%130&I,IRNK<                             COMPT206
      GO TO 146                                                       COMPT207
  147 DDD%32&I<#RSOL%109&I,IRNK<                                      COMPT208
      DD%32&I<#RCOL%164&I,IRNK<                                       COMPT209
  146 CONTINUE                                                        COMPT210
 1480 IF %R%491<.EQ.0.< GO TO 1521                                    COMPT211
      DO 148 I#1,3                                                    COMPT212
      IF %RSOL%106&I,IRNK<.GE.0.< GO TO 149                           COMPT213
      SHAD%35&I<#-RSOL%106&I,IRNK<                                    COMPT214
      DD%35&I<#RHS%35&I<-RCOL%176&I,IRNK<                             COMPT215
      GO TO 148                                                       COMPT216
  149 DD%35&I<#RCOL%143&I,IRNK<                                       COMPT217
      DDD%35&I<#RSOL%106&I,IRNK<                                      JEF31  1
  148 CONTINUE                                                        COMPT219
      DO 150 I#1,3                                                    COMPT220
      IF %RSOL%94&I,IRNK<.GE.0.< GO TO 151                            COMPT221
      SHAD%38&I<#-RSOL%94&I,IRNK<                                     COMPT222
      DD%38&I<#RCOL%146&I,IRNK<                                       COMPT223
      GO TO 150                                                       COMPT224
  151 DDD%38&I<#RSOL%94&I,IRNK<                                       COMPT225
      DD%38&I<#RCOL%146&I,IRNK<                                       COMPT226
  150 CONTINUE                                                        COMPT227
C     CALCULATE FULL TIME LABOR HOURS AVAILABLE TABLE 11              COMPT228
 1521 CONTINUE                                                        COMPT229
      DO 152 I#1,15                                                   COMPT230
      K#352                                                           COMPT231
      IF%I.GT.10< K#374                                               COMPT232
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      T#TABB%J&2,4<                                                    COMPT341
      TABB%J&2,4<#TABB%J&2,5<                                          COMPT342
      TABB%J&2,5<#T                                                    COMPT343
      GO TO 167                                                        COMPT344
  174 TABB%J&2,1<#R%511<*BCSOL%IRNK,44,1<&B&C                          COMPT345
     1&SICLAB*RCOL%142,IRNK<                                           COMPT346
      TABB%J&2,2<#SHLAB*RCOL%168,IRNK<&SLPRP*RCOL%63,IRNK<&D           JEF2    5
     1&SCLAB*RCOL%134,IRNK<&SHLAB*RCOL%144,IRNK<                       JEF2    6
      TABB%J&2,5<#R%49<*RCOL%134,IRNK<&R%50<*RCOL%142,IRNK<            COMPT349
      TABB%J&2,4<#R%49<*%RCOL%137,IRNK<&RCOL%177,IRNK<<                JEF2    7
      GO TO 167                                                        COMPT351
  175 TABB%J&2,1<#CLPRP*RCOL%17,IRNK<&R%511<*BCSOL%IRNK,45,1<&CHLAB*   COMPT352
     1RCOL%165,IRNK<&B&C&CHLAB*RCOL%147,IRNK<                          JEF2    8
     2&SICLAB*RCOL%143,IRNK<&CCLAB*RCOL%128,IRNK<                      COMPT354
      TABB%J&2,2<#SLPRP*RCOL%64,IRNK<&SHLAB*RCOL%169,IRNK<&D           JEF2    9
     1&SCLAB*RCOL%135,IRNK<&SHLAB*RCOL%145,IRNK<                       JEF2   10
      TABB%J&2,4<#R%49<*RCOL%135,IRNK<&R%50<*RCOL%143,IRNK<&R%49<*     COMPT357
     1RCOL%128,IRNK<                                                   COMPT358
      TABB%J&2,5<#R%49<*RCOL%138,IRNK<&R%49<*RCOL%131,IRNK<            COMPT359
     1&R%49<*%RCOL%174,IRNK<&RCOL%178,IRNK<<                           JEF2   11
      TT#TABB%J&2,4<                                                   COMPT360
      TABB% J&2,4<#TABB%J&2,5<                                         COMPT361
      TABB%J&2,5<#TT                                                   COMPT362
      TABB%J&2,3<#WLPRP*RCOL%110,IRNK<                                 COMPT363
      GO TO 167                                                        COMPT364
  176 TABB%J&2,1<#CLPRP*RCOL%18,IRNK<&CHLAB*RCOL%166,IRNK<&B&C         JEF2   12
     1&CCLAB*RCOL%129,IRNK<&CHLAB*RCOL%148,IRNK<                       COMPT366
      TABB%J&2,4<#R%49<*RCOL%136,IRNK<&R%49<*RCOL%129,IRNK<            COMPT367
      TABB%J&2,5<#R%49<*RCOL%139,IRNK<&R%49<*RCOL%132,IRNK<            COMPT368
     1&R%49<*%RCOL%175,IRNK<&RCOL%179,IRNK<<                           JEF2   13
      TT#TABB%J&2,4<                                                   COMPT369
      TABB%J&2,4<#TABB%J&2,5<                                          COMPT370
      TABB%J&2,5<#TT                                                   COMPT371
      E#0.                                                             COMPT372
      H#0.                                                             COMPT373
      K#76                                                             COMPT374
      L#209                                                            COMPT375
      DO 181 I#1,6                                                     COMPT376
      E#E&RCOL%K,IRNK<*R%L<                                            COMPT377
      H#H&RCOL%K&18,IRNK<*R&L<                                         COMPT378
      K#K&3                                                            COMPT379
      L#L&16                                                           COMPT380
  181 CONTINUE                                                         COMPT381
      TEMP#0.                                                          CHNG 381
      FAC#0.                                                           COMPT382
      IF %*TEMP&E&H<.EQ.0.< GO TO 1770                                 COMPT383
      FAC#TEMP/%TEMP&E&H<                                              COMPT384
 1770 CONTINUE                                                         COMPT385
      TABB%J&2,2<#SLPRP*RCOL%65,IRNK<&SHLAB*%1.-FAC<*RCOL%170,IRNK<&D& JEF2   14
     1SCLAB*%1.-FAC<*RCOL%136,IRNK<                                    COMPT387
     2&SHLAB*%1.-FAC<*RCOL%146,IRNK<                                   JEF5    1
      TABB%J&2,3<#SHLAB*FAC*RCOL%170,IRNK<&SCLAB*RCOL%136,IRNK<*FAC&   JEF2   15
     1WLPRP*RCOL%111,IRNK<                                             COMPT390
     2&SHLAB*FAC*RCOL%146,IRNK<                                        JEF5    2
      GO TO 167                                                        COMPT392
  177 TABB%J&2,1<#CLPRP*RCOL%19,IRNK<&CHLAB*RCOL%167,IRNK<&B&C         JEF2   16
     1&CCLAB*RCOL%130,IRNK<&CHLAB*RCOL%149,IRNK<                       COMPT394
      TABB%J&2,2<#SLPRP*RCOL%66,IRNK<&D                                COMPT395
      TABB%J&2,4<#R%49<*RCOL%130,IRNK<                                 COMPT396
      TABB%J&2,5<#R%49<*%RCOL%133,IRNK<&RCOL%176,IRNK<<                JEF2   17
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      IF %RCOL%162,IRNK<.GT.0.< GO TO 161                                COMPT281
      IF %RSOL%18,IRNK<.GT.0.< GO TO 161                                 COMPT282
      TAB%1,8<#-RSOL%18,IRNK<                                            COMPT283
      TAB%2,8<#-RSOL%18,IRNK<                                            COMPT284
161   DO 162 I#6,18                                                      COMPT285
      IF %RCOL%I&144,IRNK<.GT.0.< GO TO 162                              COMPT286
      IF %RSOL%I,IRNK<.GT.0.< GO TO 162                                  COMPT287
      K#I-3                                                              COMPT288
      TAB%K,8<#-RSOL%I,IRNK<                                             COMPT289
162   CONTINUE                                                           COMPT290
      DO 163 I#1,7                                                       COMPT291
      DO 164 J#1,15                                                      COMPT292
      TAB%16,I<#TAB%16,I<&TAB%J,I<                                       COMPT293
164   CONTINUE                                                           COMPT294
163   CONTINUE                                                           COMPT295
      CTOT#CLPRP*RCOL%20,IRNK<                                           COMPT296
      STOT#SLPRP*RCOL%67,IRNK<                                           COMPT297
      SUM#R%306<*R%326<*R%353<&R%307<*R%327<*R%354<&R%320<*R%340<*R%389<COMPT298
      IF %SUM.EQ.0.< GO TO 165                                           COMPT299
      W%1<#R%306<*R%326<*R%353</SUM                                      COMPT300
      W%2<#R%307<*R%327<*R%354</SUM                                      COMPT301
      W%3<#R%320<*R%340<*R%389</SUM                                      COMPT302
165   DO 166 I#1,2                                                       COMPT303
      TABB%I,1<#W%I<*CTOT                                                COMPT304
      TABB%I,2<#W%I<*STOT                                                COMPT305
166   CONTINUE                                                           COMPT306
      TABB%15,1<#W%3<*CTOT                                               COMPT307
      TABB%15,2<#W%3<*STOT                                               COMPT308
      DO 167 J#1,12                                                      COMPT309
      B#0.                                                               COMPT310
      C#0.                                                               COMPT311
      D#0.                                                               COMPT312
      DO 168 I#27,44                                                     COMPT313
      B#B&AWORK%J,I-26<*%RCOL%I,IRNK<&RCOL%I&18,IRNK<<                   COMPT314
168   CONTINUE                                                           COMPT315
      K#0                                                                COMPT316
      DO 169 I#114,125                                                   COMPT317
      L#K&I/2-56                                                         COMPT318
      K#K&1                                                              COMPT319
      C#C&AWORK%J,L<*RCOL%I,IRNK<                                        COMPT320
169   CONTINUE                                                           COMPT321
      DO 170 I#74,91                                                     COMPT322
      D#D&BWORK%J,I-73<*%RCOL%I,IRNK<&RCOL%I&18,IRNK<<                   COMPT323
170   CONTINUE                                                           COMPT324
      GO TO%171,171,171,171,171,171,172,173,174,175,176,177<,J           COMPT325
171   TABB%J&2,1<#B&C&CLPRP*RCOL%J&20,IRNK<                              COMPT326
      TABB%J&2,2<#D&SLPRP*RCOL%J&67,IRNK<                                COMPT327
      GO TO 167                                                          COMPT328
172   TABB%J&2,1<#B&C                                                    COMPT329
      TABB%J&2,2<#D                                                      COMPT330
      GO TO 167                                                          COMPT331
173   TABB%J&2,1<#B&C                                                    COMPT332
      TABB%J&2,2<#D                                                      COMPT333
      F#0.                                                               COMPT334
      DO 180 I#126,127                                                   COMPT335
      F#F&DCPRP*RCOL%I,IRNK<                                             COMPT336
180   CONTINUE                                                           COMPT337
      TABB%J&2,3<#WHLAB*RCOL%173,IRNK<&F                                 JEF2   4
      TABB%J&2,4<#WCLAB*RCOL%140,IRNK<                                   COMPT339
      TABB%J&2,5<#R%49<*RCOL%141,IRNK<                                   COMPT340
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      IEND#8                                                                    JEF34 49
      IADD#65                                                                   JEF34 50
      ISW#1                                                                     JEF34 51
      GO TO 304                                                                 JEF34 52
  300 CONTINUE                                                                  JEF34 53
C     CALCULATE TRACTOR USAGE FOR COLUMNS 27-62 AND 74-109                      JEF34 54
      DO 308 IBEAN#2,3                                                          JEF34 55
      IC#26                                                                     JEF34 56
      IF %IBEAN.EQ.3< IC#73                                                     JEF34 57
      DO 309 IWET#1,2                                                           JEF34 58
      DO 310 J#1,18                                                             JEF34 59
      L#%J-1</3                                                                 JEF34 60
      IC#IC&1                                                                   JEF34 61
      DO 311 I#1,6                                                              JEF34 62
      GO TO %311,312,313<,IBEAN                                                 JEF34 63
  312 TEMP#AWRK%I,J<                                                            JEF34 64
      GO TO 314                                                                 JEF34 65
  313 TEMP#BWRK%I,J<                                                            JEF34 66
  314 IF %TEMP.LE.0.< GO TO 311                                                 JEF34 67
      TAB3%I&2,IBEAN<#RCOL%IC,IRNK<*TEMP&TAB3%I&2,IBEAN<                        JEF34 68
  311 CONTINUE                                                                  JEF34 69
  310 CONTINUE                                                                  JEF34 70
  309 CONTINUE                                                                  JEF34 71
  308 CONTINUE                                                                  JEF34 72
C     WHEAT TRACTOR HOURS                                                       JEF34 73
      S3#0.                                                                     JEF34 74
      DO 315 J#1,4                                                              JEF34 75
      WC#R%430&J<*R%448&J<                                                      JEF34 76
      IF %WC< 315,315,3160                                                      JEF34 77
 3160 S3#S3&1./R%448&J<                                                         JEF34 78
  315 CONTINUE                                                                  JEF34 79
      TAB3%12,4<#RCOL%110,IRNK<*S3                                              JEF34 80
      TAB3%13,4<#RCOL%111,IRNK<*S3                                              JEF34 81
C     SILAGE TRACTOR HOURS                                                      JEF34 82
      IC#113                                                                    JEF34 83
      DO 316 J#1,12                                                             JEF34 84
      L#%J-1</2                                                                 JEF34 85
      IC#IC&1                                                                   JEF34 86
      DO 317 I#1,6                                                              JEF34 87
      IF %SWRK%I,L&1<.EQ.0.< GO TO 317                                          JEF34 88
      TAB3%I&2,2<#TAB3%I&2,2< &RCOL%IC,IRNK<*SWRK%I,L&1<                        JEF34 89
  317 CONTINUE                                                                  JEF34 90
  316 CONTINUE                                                                  JEF34 91
C     TRACOTR USAGE SILAGE HARVEST                                              JEF34 92
      TAB3%11,2<#TAB3%11,2<&RCOL%142,IRNK<*R%488<&BCSOL%IRNK,44,1<*             JEF34 93
     1R%487<                                                                    JEF34 94
      TAB3%12,2<#TAB3%12,2<&RCOL%143,IRNK<*R%488<&BCSOL%IRNK,45,1<*             JEF34 95
     1R%487<                                                                    JEF35  1
C     TRACTOR USAGE CORN HARVEST AND SOYBEAN HARVEST--CORN SOYBEAN COMBI        JEF34 97
      DO 318 I#2,3                                                              JEF34 98
      GO TO %318,319,320<,I                                                     JEF34 99
  319 IC#146                                                                    JEF34100
      IBEG#12                                                                   JEF34101
      IEND#14                                                                   JEF34102
      GO TO 321                                                                 JEF34103
  320 IC#143                                                                    JEF34104
      IBEG#11                                                                   JEF34105
      IEND#13                                                                   JEF34106
  321 DO 322 J#IBEG,IEND                                                        JEF34107
      IC#IC&1                                                                   JEF34108
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      TT#TABB%J&2,4<                                                    COMPT398
      TABB%J&2,4<#TABB%J&2,5<                                           COMPT399
      TABB%J&2,5<#TT                                                    COMPT400
  167 CONTINUE                                                          COMPT401
      DO 182 J#1,15                                                     COMPT402
      DO 183 I#1,4                                                      COMPT403
      TABB%J,6<#TABB%J,6<&TABB%J,I<                                     COMPT404
  183 CONTINUE                                                          COMPT405
      DO 184 I#1,6                                                      COMPT406
      TABB%16,I<#TABB%16,I<&TABB%J,I<                                   COMPT407
  184 CONTINUE                                                          COMPT408
  182 CONTINUE                                                          COMPT409
C     COLUMN 1--TRACTOR HOURS AVAILABLE                                 JEF34   1
      I1#307                                                            JEF34   2
      I2#327                                                            JEF34   3
      I3#376                                                            JEF34   4
      MIN#3                                                             JEF34   5
      MAX#8                                                             JEF34   6
      DO 336 J#1,2                                                      JEF34   7
      DO 337 I#MIN,MAX                                                  JEF34   8
      I1#I1&1                                                           JEF34   9
      I2#I2&1                                                           JEF34  10
      I3#I3&1                                                           JEF34  11
      TAB3%I,1<#R%I1<*R%I2<*R%I3<                                       JEF34  12
  337 CONTINUE                                                          JEF34  13
      I1#315                                                            JEF34  14
      I2#335                                                            JEF34  15
      I3#394                                                            JEF34  16
      MIN#11                                                            JEF34  17
      MAX#14                                                            JEF34  18
  336 CONTINUE                                                          JEF34  19
C     CALCULATE TRACTOR USAGE FOR COLUMNS 17-26 AND 63-73               JEF34  20
      DO 300 LP#2,3                                                     JEF34  21
      S3#0.                                                             JEF34  22
      ISW#0                                                             JEF34  23
      IBEAN#LP-2                                                        JEF34  24
      DO 301 I#1,6                                                      JEF34  25
      IF %R%434&I&IBEAN*18<.EQ.0.< GO TO 301                            JEF34  26
      S3#S3&1./R%434 &I&IBEAN*18<                                       JEF34  27
  301 CONTINUE                                                          JEF34  28
      GO TO %300,302,303<,LP                                            JEF34  29
  302 IBEG#12                                                           JEF34  30
      IEND#14                                                           JEF34  31
      IADD#5                                                            JEF34  32
      GO TO 304                                                         JEF34  33
  303 IBEG#11                                                           JEF34  34
      IEND#14                                                           JEF34  35
      IADD#52                                                           JEF34  36
  304 DO 305 J#IBEG,IEND                                                JEF34  37
      JJ#J&IADD                                                         JEF34  38
      TAB3%J,LP<#RCOL%JJ,IRNK<*S3&TAB3%J,LP<                           JEF34  39
  305 CONTINUE                                                          JEF34  40
      IF %ISW.EQ.1< GO TO 300                                           JEF34  41
      GO TO %300,306,307<,LP                                            JEF34  42
  306 IBEG#3                                                            JEF34  43
      IEND#8                                                            JEF34  44
      IADD#18                                                           JEF34  45
      ISW#1                                                             JEF34  46
      GO TO 304                                                         JEF34  47
  307 IBEG#3                                                            JEF34  48
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      1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,      COMDI   2
      2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,   COMDI   3
      3AVS%2,8<,AVRT%2,8<,AMDI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<COMDI   4
      4,AWORK%12,18<,BWORK%12,18<,CLPRP,SIPRP,WLPRP,DCPRP,CCLAB,SCLAB,     COMDI   5
      5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO       COMDI   6
      6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                    JEF27   1
      7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                   JEF34   1
       COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,SIPRD%2,4<,       COMMN   1
      1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6<   COMMN   2
      2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                        JEF8    1
      3,TAB3%16,9<                                                         JEF34   1
       REAL*8    NAM1%30<,NAM2%15,2<,KDATE1%14<,KDATE2%7,2<,LDATE1%10<,    RPT1    4
      1LDATE2%5,2<,JDATE1%6<,JDATE2%3,2<                                   RPT1    5
       EQUIVALENCE                          %NAM2%1,1<,NAM1%1<<,           RPT1   24
      1%KDATE2%1,1<,KDATE1%1<<,%LDATE2%1,1<,LDATE1%1<<,%JDATE2%1,1<,       RPT1   25
      2JDATE1%1<<                                                          RPT1   26
       EQUIVALENCE %IO,IO<                                                 RPT1   27
       DATA NAM1              /8HMAR.15-A,8HAPR. 5-A,8HAPR.26-M,            RPT1    6
      18HMAY  3-M,8HMAY 10-M,8HMAY 17-M,8HMAY 24-M          ,               RPT1    7
      28HMAY 31-J,8HJUNE 7-J,8HJUNE14-J,8HSEP.13-S  ,                      RPT1    8
      3 8HSEP.27-O,8HOCT.18-N,8HNOV. 6-N,8HNOV.29-M,8HPR.4                 JEF28   1
      4,8HPR.25   ,8HAY  2   ,8HAY  9   ,8HAY 16   ,8HAY 23   ,8HAY 30    RPT1   10
      5,8HUNE 6   ,8HUNE13   ,8HULY18   ,8HEP.26   ,8HCT.17   ,8HOV. 7    RPT1   11
      6,8HOV.28   ,8HAR.14   /                                             JEF28   2
       DATA KDATE1            /                        8HAPR.26-M,        RPT1   13
      18HMAY  3-M,8HMAY 10-M,8HMAY 17-M,8HMAY 24-M          ,              RPT1   14
      28HMAY 31-J,8HJUNE 7-J                                               RPT1   15
      3             ,8HAY  2   ,8HAY  9   ,8HAY 16   ,8HAY 23   ,8HAY 30  RPT1   16
      4,8HUNE 6   ,8HUNE13   /                                             RPT1   17
       DATA LDATE1            /          8HSEP.13-S  ,                     RPT1   18
      3 8HSEP.27-O,8HOCT.18-N,8HNOV. 6-N,8HNOV.29-M,                       JEF29   1
      5                          8HEP.26   ,8HCT.17   ,8HOV. 7            RPT1   20
      6,8HOV.28   ,8HAR.14   /                                             JEF29   2
       DATA JDATE1           /8HSEPTEMBE,6HOCTOBER  ,8HNOVEMBER,8HR        RPT1   22
      1  ,8H         ,8H     /                                             RPT1   23
  205 FORMAT%5X,I2,2H. ,2A8,F9.2,F16.2<                                    RPT1   28
  255 FORMAT%1X,10A4,@O.S.U. CROPPING BUDGET PAGE@,I4/@0  TABLE 1.@,25X,    RPT1   29
      1@PRESENT PLAN     OPTIMAL PLAN@/3X,@NET RETURNS TO MGT.@,14X,@$@,   RPT1   30
      2F9.0,8X,@$@,F8.0/3X,@ACRES CORN GRAIN@,F27.0,F17.0/3X,@ACRES CORN   JEF1    1
      3SILAGE@,F26.0,F17.0/3X,@ACRES SOYBEANS@,F29.0,F17.0/3X,@ACRES WHEARPT1   32
      4T@,F32.0,F17.0/3X,@ACRES DOUBLE-CROP BEANS@,F20.0,F17.0/3X,@ACRES   RPT1   33
      5NOT USED@,F29.0,F17.0/3X,@ACRES RENTED OUT@,F27.0,F17.0/3X,@HOURS   RPT1   34
      6CUSTOM COMBINE HIRED OUT@,F13.0,F17.0<                              RPT1   35
  256 FORMAT%65HO     THE FOLLOWING RESOURCES LIMIT THE EXPANSION OF YOURRPT1   36
      1 FIRM AND/5X,26HHAVE THE FOLLOWING VALUES./5X,28H(FOR AT LEAST SMARPT1   37
      2LL AMOUNTS)<                                                        RPT1   38
  257 FORMAT%1HO,27X,20HVALUE PER ADDITIONAL<                              RPT1   39
  258 FORMAT%7X,8HRESOURCE,17X,13HUNIT ($/UNIT)/25X,27HPRESENT PLAN  OPRPT1   40
      1TIMUM PLAN/1HO<                                                     RPT1   41
       ISW#0                                                               RPT1   42
       K#0                                                                 RPT1   43
       IPAGE#IPAGE&1                                                       RPT1   44
       TEMP#R%28<&R%561<-TACR%1,1<-ACRES%1,10<-TACR%1,2<-ACRES%1,7<-       JEF26   1
      1BCSOL%1,2,1<                                                        JEF26   2
       TEMP1#R%28<&R%561<-TACR%2,1<-ACRES%2,10<-TACR%2,2<-ACRES%2,7<-      JEF26   3
      1BCSOL%2,2,1<                                                        JEF26   4
       IF %TEMP.LE.0.< TEMP#0.                                             RPT1   49
       IF %TEMP1.LE.0.< TEMP1#0.                                           RPT1   50
       WRITE%IO,255<%HEAD%I<,I#1,10<,IPAGE,%PROFT%I<,I#1,2<,%TACR%I,1<,    CHNG  776
      1I#1,2<,%ACRES%I,10<,I#1,2<,%TACR%I,2<,I#1,2<,%ACRES%I,7<,I#1,2<,    CHNG  777
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      TAB3%J,I<#TAB3%J,I<&RCOL%IC,IRNK<*R%486<                                  JEF34109
  322 CONTINUE                                                                  JEF34110
  318 CONTINUE                                                                  JEF34111
C     TRACTOR USAGE CORN AND SOYBEAN HARVEST--CORN ONLY OR SOYBEAN ONLY         JEF34112
C     COMBINE                                                                   JEF34113
      DO 323 I#2,3                                                              JEF34114
      GO TO %323,324,325<,I                                                     JEF34115
  324 IC#164                                                                    JEF34116
      IBEG#12                                                                   JEF34117
      IEND#14                                                                   JEF34118
      GO TO 326                                                                 JEF34119
  325 IC#167                                                                    JEF34120
      IBEG#11                                                                   JEF34121
      IEND#13                                                                   JEF34122
  326 DO 327 J#IBEG,IEND                                                        JEF34123
      IC#IC&1                                                                   JEF34124
      TAB3%J,I<#TAB3%J,I<&RCOL%IC,IRNK<*R%486<                                  JEF34125
  327 CONTINUE                                                                  JEF34126
  323 CONTINUE                                                                  JEF34127
C     TRACTOR HOURS D.C. SOYBEAN HARVEST                                        JEF34128
      IF %TAB3%13,3<.EQ.0.< GO TO 338                                           JEF34129
      C#%R%505<-R%500<</15.                                                     JEF34130
      B#C*%30.-R%535<<&R%505<                                                   JEF34131
      A#BIG                                                                     JEF34132
      IF %B.GT.0.< A#1./B                                                       JEF34133
      TEMP#RCOL%126,IRNK<*A&RCOL%127,IRNK<*A                                    JEF34134
      TEMP#TEMP/TAB3%13,3<                                                      JEF34135
      TAB3%13,4<#TAB3%13,4<&TAB3%13,3<*TEMP                                     JEF34136
      TAB3%13,3<#TAB3%13,3<-%TAB3%13,3<*TEMP<                                   JEF34137
C     CALCULTATE COLUMN 7                                                       JEF34138
  338 DO 328 I#1,15                                                             JEF34139
      DO 329 J#2,4                                                              JEF34140
      TAB3%I,7<#TAB3%I,7<&TAB3%I,J<                                             JEF34141
  329 CONTINUE                                                                  JEF34142
      TAB3%I,7<#TAB3%I,7<&TAB3%I,6<                                             JEF34143
  328 CONTINUE                                                                  JEF34144
      DO 330 I#3,8                                                              JEF34145
      J#41&I                                                                    JEF34146
      IF %RSOL%J,IRNK<.GE.0.< GO TO 331                                         JEF34147
      TAB3%I,9<#-RSOL%J,IRNK<                                                   JEF34148
      GO TO 330                                                                 JEF34149
  331 TAB3%I,8<#RSOL%J,IRNK<                                                    JEF34150
  330 CONTINUE                                                                  JEF34151
      DO 334 I#11,14                                                            JEF34152
      J#I&39                                                                    JEF34153
      IF %RSOL%J,IRNK<.GE.0.< GO TO 335                                         JEF34154
      TAB3%I,9<#-RSOL%J,IRNK<                                                   JEF34155
      GO TO 334                                                                 JEF34156
  335 TAB3%I,8<#RSOL%J,IRNK<                                                    JEF34157
  334 CONTINUE                                                                  JEF34158
      DO 332 J#1,8                                                              JEF34159
      DO 333 I#1,15                                                             JEF34160
      TAB3%16,J<#TAB3%16,J<&TAB3%I,J<                                           JEF34161
  333 CONTINUE                                                                  JEF34162
  332 CONTINUE                                                                  JEF34163
      RETURN                                                                    COMPT410
      END                                                                       COMPT411
      SUBROUTINE RPT1                                                           RPT1    1
      REAL*8 IDENT                                                              CHNG   10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,        JEF18   1
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  380 CONTINUE                                                          RPT1  113
      ISW#-1                                                            RPT1  114
      DO 300 I#25,30                                                    RPT1  115
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 300                RPT1  116
      ISW#ISW&1                                                         RPT1  117
      IF%ISW-1<298,299,299                                              RPT1  118
  298 WRITE%IO,240<                                                     RPT1  119
  240 FORMAT%23H   FIELD HOURS-PLANTING<                                RPT1  120
  299 K#K&1                                                             RPT1  121
      J#I-22                                                            RPT1  122
      M#I&4                                                             RPT1  123
      WRITE%IO,205<K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%M,L<,L#1,2<             RPT1  124
  300 CONTINUE                                                          RPT1  125
      ISW#-1                                                            RPT1  126
      DO 305 I#31,38                                                    RPT1  127
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 305                RPT1  128
      ISW#ISW&1                                                         RPT1  129
      IF%ISW-1<302,301,301                                              RPT1  130
  302 WRITE%IO,241<                                                     RPT1  131
  241 FORMAT%14H   FIELD HOURS/18H     -POST PLANTING<                  RPT1  132
  301 K#K&1                                                             RPT1  133
      J#I-28                                                            RPT1  134
      M#I&4                                                             RPT1  135
      WRITE%IO,205<K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%M,L<,L#1,2<             RPT1  136
  305 CONTINUE                                                          RPT1  137
      ISW#-1                                                            RPT1  138
      DO 310 I#44,53                                                    RPT1  139
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 310                RPT1  140
      ISW#ISW&1                                                         RPT1  141
      IF%ISW-1<307,306,306                                              RPT1  142
  307 WRITE%IO,242<                                                     RPT1  143
  242 FORMAT%16H   TRACTOR HOURS<                                       RPT1  144
  306 K#K&1                                                             RPT1  145
      J#I-41                                                            RPT1  146
      IF %I.GT.49< J#J&2                                                RPT1  147
      M#I-1                                                             RPT1  148
      WRITE%IO,205<K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%M,L<,L#1,2<             RPT1  149
  310 CONTINUE                                                          RPT1  150
      IF %RSOL%116,1<.GE.0..AND.RSOL%116,2<.GE.0.< GO TO 403            RPT1  151
      WRITE%IO,2<                                                       RPT1  152
    2 FORMAT%14H   FIELD HOURS/21H     -WHEAT HARVESTING<               RPT1  153
      K#K&1                                                             RPT1  154
      WRITE%IO,3< K,%RSHAD%59,L<,L#1,2<                                 RPT1  155
    3 FORMAT%5X,I2,@. JUNE14-JULY18@,F12.2,F16.2<                       RPT1  156
  403 ISW#-1                                                            RPT1  157
C     ACREAGE CONTROL                                                   RPT1  158
      IF %RSOL%2,1<.GE.0..AND.RSOL%2,2<.GE.0.< GO TO 321                RPT1  159
      WRITE%IO,244<                                                     RPT1  160
  244 FORMAT%15H   LAND ACREAGE<                                        RPT1  161
      K#K&1                                                             RPT1  162
      WRITE%IO,295<K,%RSHAD%62,L<,L#1,2<                                RPT1  163
  295 FORMAT%5X,I2,@. ACRE@,F21.2,F16.2<                                UPDAT1  9
  321 IF %RSOL%102,1<.GE.0..AND.RSOL%102,2<.GE.0.< GO TO 185            RPT1  165
      K#K&1                                                             RPT1  166
      WRITE%IO,12< K,%RSHAD%74,L<,L#1,2<                                RPT1  167
   12 FORMAT%5X,I2,@. FALL LAND PREP LMT@,F7.2,F16.2<                   RPT1  168
C     LAND RENTED                                                       RPT1  169
  185 ISW#-1                                                            RPT1  170
      DO 390 I#2,3                                                      RPT1  171
      IF %BCSOL%1,I,2<.GE.0..AND.BCSOL%2,I,2<.GE.0.< GO TO 390          RPT1  172
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     2%TACR%I,3<,I#1,2<,TEMP,TEMP1,%BCSOL%I,2,1<,I#1,2<,%TCOMB%I<,I#1,2<RPT1   53
      WRITE%IO,256<                                                    RPT1   54
      WRITE%IO,257<                                                    RPT1   55
      WRITE%IO,258<                                                    RPT1   56
C     OWN LABOUR HOURS                                                 RPT1   57
      ISW#-1                                                           RPT1   58
      IF %RCOL%162,1<.GE.0..AND.RCOL%162,2<.GE.0.< GO TO 100           RPT1   59
      DO 330 J#1,2                                                     RPT1   60
      IF %RSOL%18,1<.GE.0..AND.RSOL%18,2<.GE.0.< GO TO 330             RPT1   61
      ISW#ISW&1                                                        RPT1   62
      IF%ISW-1<336,335,335                                             RPT1   63
  336 WRITE%IO,245<                                                    RPT1   64
  245 FORMAT%18H   OWN LABOR HOURS<                                    RPT1   65
  335 K#K&1                                                            RPT1   66
      WRITE%IO,205<K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%J,L<,L#1,2<            RPT1   67
  330 CONTINUE                                                         RPT1   68
  100 DO 340 I#6,18                                                    RPT1   69
      IF %RCOL%I&144,1<.GT.0..AND.RCOL%I&144,2<.GT.0.< GO TO 340       RPT1   70
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 340               RPT1   71
      ISW#ISW&1                                                        RPT1   72
      IF%ISW-1<346,345,345                                             RPT1   73
  346 WRITE%IO,245<                                                    RPT1   74
  345 K#K&1                                                            RPT1   75
      J#I-3                                                            RPT1   76
      WRITE%IO,205<K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%J,L<,L#1,2<            RPT1   77
  340 CONTINUE                                                         RPT1   78
C     FIELD HOURS TO PREPARE LAND IN THE SPRING                        RPT1   79
      ISW#-1                                                           RPT1   80
      DO 360 I#19,24                                                   RPT1   81
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 360               RPT1   82
      ISW#ISW&1                                                        RPT1   83
      IF%ISW-1<365,366,366                                             RPT1   84
  365 WRITE%IO,248<                                                    RPT1   85
  248 FORMAT%@   FIELD HOURS TO PREPARE LAND@<                         RPT1   86
  366 K#K&1                                                            RPT1   87
      J#I-16                                                           JEF31   1
      M#I-3                                                            RPT1   89
      WRITE%IO,205<K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%M,L<,L#1,2<            RPT1   90
  360 CONTINUE                                                         RPT1   91
C     FIELD HOURS TO PREPARE LAND IN THE FALL                          RPT1   92
      ISW#-1                                                           RPT1   93
      DO 370 J#1,2                                                     RPT1   94
      IF %RSOL%43,1<.GE.0..AND.RSOL%43,2<.GE.0.< GO TO 370             RPT1   95
      ISW#ISW&1                                                        RPT1   96
      IF%ISW-1<374,375,375                                             RPT1   97
  374 WRITE%IO,249<                                                    RPT1   98
  249 FORMAT%@   FIELD HOURS TO PREPARE LAND@<                         RPT1   99
  375 K#K&1                                                            RPT1  100
      I#J&21                                                           RPT1  101
      WRITE%IO,205<K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%I,L<,L#1,2<            RPT1  102
  370 CONTINUE                                                         RPT1  103
      DO 380 I#39,43                                                   RPT1  104
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 380               RPT1  105
      ISW#ISW&1                                                        RPT1  106
      IF%ISW-1<385,386,386                                             RPT1  107
  385 WRITE%IO,249<                                                    RPT1  108
  386 K#K&1                                                            RPT1  109
      J#I-28                                                           RPT1  110
      M#I-15                                                           RPT1  111
      WRITE%IO,205<K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%M,L<,L#1,2<            RPT1  112
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      IF%%ISW-1<.LT.0.< WRITE%IO,5<                                          RPT1  226
      WRITE%IO,10< K,%RSHAD%73,L<,L#1,2<                                     RPT1  227
10    FORMAT%5X,I2,@.  SILAGE@,F19.2,F16.2<                                  RPT1  228
414   ISW#0                                                                  RPT1  229
      IF %R%493<.EQ.0.< GO TO 435                                            RPT1  230
      DO 415 I#44,45                                                         JEF31   2
      IF %BCSOL%1,I,2<.GE.0..AND.BCSOL%2,I,2<.GE.0.< GO TO 415               JEF31   3
      ISW#ISW&1                                                              RPT1  233
415   CONTINUE                                                               RPT1  234
435   IF %R%490<.EQ.0.< GO TO 436                                            RPT1  235
      DO 416 I#113,115                                                       RPT1  236
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 416                     RPT1  237
      ISW#ISW&1                                                              RPT1  238
416   CONTINUE                                                               RPT1  239
436   IF %R%489<.EQ.0.< GO TO 437                                            RPT1  240
      DO 417 I#110,112                                                       RPT1  241
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 417                     RPT1  242
      ISW#ISW&1                                                              RPT1  243
417   CONTINUE                                                               RPT1  244
437   IF %R%491<.EQ.0.< GO TO 438                                            RPT1  245
      DO 418 I#97,100                                                        RPT1  246
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 418                     RPT1  247
      ISW#ISW&1                                                              RPT1  248
418   CONTINUE                                                               RPT1  249
      DO 419 I#95,97                                                         RPT1  250
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 419                     RPT1  251
      ISW#ISW&1                                                              RPT1  252
419   CONTINUE                                                               RPT1  253
438   IF %ISW.LE.0<  GO TO 434                                               RPT1  254
      WRITE%IO,15<                                                           RPT1  255
15    FORMAT%@   HARVESTING TIME@<                                           RPT1  266
      IF %R%493<.EQ.0.< GO TO 4210                                           RPT1  257
      ISW#-1                                                                 RPT1  258
      DO 420 I#44,45                                                         JEF31   4
      IF %BCSOL%1,I,2<.GE.0..AND.BCSOL%2,I,2<.GE.0.< GO TO 420               JEF31   5
      ISW#ISW&1                                                              RPT1  261
      IF %ISW-1< 421,422,422                                                 RPT1  262
421   WRITE%IO,16<                                                           RPT1  263
16    FORMAT%@   SILAGE COMBINE@<                                            R7T1  264
422   K#K&1                                                                  RPT1  265
      J#I-33                                                                 JEF31   6
      M#I&37                                                                 JEF31   7
      WRITE%IO,205< K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%M,L<,L#1,2<                 RPT1  268
420   CONTINUE                                                               RPT1  269
4210  IF %R%490<.EQ.0.< GO TO 4230                                           RPT1  270
      ISW#-1                                                                 RPT1  271
      DO 4221 I#113,115                                                      RPT1  272
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 4221                    RPT1  273
      ISW#ISW&1                                                              RPT1  274
      IF%ISW-1< 423,424,424                                                  RPT1  275
423   WRITE%IO,17<                                                           RPT1  276
17    FORMAT%@   SOYBEAN ONLY COMBINE@<                                      RPT1  277
424   K#K&1                                                                  RPT1  278
      J#I-102                                                                RPT1  279
      M#I-60                                                                 RPT1  280
      WRITE%IO,205< K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%M,L<,L#1,2<                 RPT1  281
4221  CONTINUE                                                               RPT1  282
4230  IF %R%489<.EQ.0.< GO TO 427                                            RPT1  283
      ISW#-1                                                                 RPT1  284
      DO 4240 I#110,112                                                      RPT1  285
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      ISW#ISW&1                                                          RPT1 173
      IF%ISW-1<395,396,396                                               RPT1 174
  395 WRITE%IO,250<                                                      RPT1 175
  250 FORMAT%14H   LAND RENTED<                                          RPT1 176
  396 K#K&1                                                              RPT1 177
      M#I&61                                                             RPT1 178
      IF %I.EQ.2< WRITE%IO,251< K,%RSHAD%M,L<,L#1,2<                     RPT1 179
      IF %I.EQ.3< WRITE%IO,11< K,%RSHAD%M,L<,L#1,2<                      RPT1 180
   11 FORMAT%5X,I2,@. LAND RENTED IN@,F11.2,F16.2<                       RPT1 181
  251 FORMAT%5X,I2,@. LAND RENTED OUT@,F10.2,F16.2<                      RPT1 182
  390 CONTINUE                                                           RPT1 183
C     DRYER CAPACITY                                                     RPT1 184
      ISW#-1                                                             RPT1 185
      DO 397 I#60,63                                                     RPT1 186
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 397                 RPT1 187
      ISW#ISW&1                                                          RPT1 188
      IF%ISW-1<398,399,399                                               RPT1 189
  398 WRITE%IO,252<                                                      RPT1 190
  252 FORMAT%17H   DRYER CAPACITY<                                       RPT1 191
  399 K#K&1                                                              RPT1 192
      JJ#I-2                                                             RPT1 193
      M#I&5                                                              RPT1 194
      WRITE%IO,205< K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%M,L<,L#1,2<             RPT1 195
  397 CONTINUE                                                           RPT1 196
      IF %RSOL%64,1<.GE.0..AND.RSOL%64,2<.GE.0.< GO TO 450               JEF27  1
      ISW#ISW&1                                                          JEF27  2
      IF %ISW-1< 451,452,452                                             JEF27  3
  451 WRITE%IO,252<                                                      JEF27  4
  452 K#K&1                                                              JEF27  5
      WRITE%IO,453< K,%RSHAD%83,L<,L#1,2<                                JEF27  6
  453 FORMAT%5X,I2,@. STORAGE CAPACITY@,F9.2,F16.2<                      JEF27 77
  450 ISW#-1                                                             JEF27  8
      DO 407 I#3,5                                                       RPT1 198
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 407                 RPT1 199
      ISW#ISW&1                                                          RPT1 200
      IF %ISW-1< 408,409,409                                             RPT1 201
  408 WRITE%IO,5<                                                        RPT1 202
    5 FORMAT%15H   CROP ACREAGE<                                         UPDAT110
  409 K#K&1                                                              RPT1 204
      II#I-2                                                             RPT1 205
      M#I&66                                                             RPT1 206
      GO TO %410,411,412<,II                                             RPT1 207
  410 WRITE%IO,6< K,%RSHAD%M,L<,L#1,2<                                   RPT1 208
    6 FORMAT%5X,I2,@. CORN ACRE@,2F16.2<                                 -PT1 209
      GO TO 407                                                          RPT1 210
  411 WRITE%IO,7< K,%RSHAD%M,L<,L#1,2<                                   RPT1 211
    7 FORMAT%5X,I2,@. SOYBEANS ACRE@,F12.2,F16.2<                        RPT1 212
      GO TO 407                                                          RPT1 213
  412 WRITE%IO,8< K,%RSHAD%M,L<,L#1,2<                                   RPT1 214
    8 FORMAT%5X,I2,@. WHEAT ACRE@,F15.2,F16.2<                           RPT1 215
  407 CONTINUE                                                           RPT1 216
      IF %RSOL%101,1<.GE.0..AND.RSOL%101,2<.GE.0.< GO TO 413             RPT1 217
      ISW#ISW&1                                                          RPT1 218
      K#K&1                                                              RPT1 219
      IF%%ISW-1<.LT.0< WRITE%IO,5<                                       RPT1 220
      WRITE%IO,9< K,%RSHAD%72,L<,L#1,2<                                  RPT1 221
    9 FORMAT%5X,I2,@. D.C. SOYBEANS@,F12.2,F16.2<                        RPT1 222
  413 IF %RSOL%100,1<.GE.0..AND.RSOL%100,2<.GE.0.< GO TO 414             RPT1 223
      ISW#ISW&1                                                          RPT1 224
      K#K&1                                                              RPT1 225
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      DO 4 I#1,6                                                        ARTSI   6
      K#ICOL&I                                                          ARTSI   7
      IF %RCOL%K,1<.LE.0.< GO TO 4                                      ARTSI   8
      IF%IOUT.NE.0< GO TO 2                                             ARTSI   9
      WRITE%IO,1<                                                       ARTSI  10
1     FORMAT%@1 SILAGE ERROR REPORT@,/@ FOR THE FOLLOWING PLANTING PERIOJEF22   1
     1DS YOUR SILAGE REQUIREMENTS ARE INFEASIBLE@/@ TO RECTIFY THIS CHECARTSI  12
     2K YOUR AVAILABILITY OF LAND, LABOR, TRACTORS AND FIELDTIME FOR, POARTSI  13
     3STPLANTING AND HARVESTING@/@  SILAGE SPRING WORK IS IDENTICAL TO CARTSI  14
     4ORN INCLUDING POST PLANT REQUIREMENTS@/@  THE VALUE OF ADDITIONAL JEF22   2
     5RESOURCES SHOULD AID YOU IN YOUR CORRECTIONS@/@0@<                JEF22   3
2     WRITE%IO,3< I                                                     ARTSI  17
3     FORMAT%@  SILAGE PLANTING PERIOD NO.@,I4<                         ARTSI  18
4     CONTINUE                                                          ARTSI  19
      RETURN                                                            ARTSI  20
      END                                                               ARTSI  21
      SUBROUTINE RPT2                                                   RPT2    1
      REAL*8 IDENT                                                      CHNG   10
      REAL*8 CDATE                                                      CHNG   20
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,JEF18   1
     1ACRE%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,    COMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<, COMDI   3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<COMDI   4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,   COMDI   5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO     COMDI   6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                  JEF27   1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                 JEF34   1
      COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,     COMMN   1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6< COMMN   2
     2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                      JEF8    1
     3,TAB3%16,9<                                                       JEF34   1
200   FORMAT%1H1,40X,27HO.S.U. CROPPING BUDGET PAGE  ,I4/     31HO O.S.URPT2    4
     1. CROP ENTERPRISE BUDGET,9X,21HDATE OF COMPUTER RUN ,I2,1H/,I2,1H/RPT2 4.5
     2,I4<                                                              RPT2    5
202   FORMAT%@0 PLAN IDENTIFICATION @,A7,1X,10A4<                       RPT2    6
210   FORMAT%2HO ,70%1H*<<                                              RPT2    7
211   FORMAT%67HO TABLE 2. PROFIT AND LOSS COMPARISON FOR PRESENT AND OPRPT2    8
     *TIMUM PLANS<                                                      RPT2    9
212   FORMAT%1HO,48X,@PRESENT@,8X,@OPTIMUM@/16X,@ITEM@,31X,@PLAN@,11X,@PRPT2   10
     *LAN@/@  INCOME@<                                                  RPT2   11
213   FORMAT%@    1. DRY CORN SALES@,27X,F10.0,F15.0<                   RPT2   12
214   FORMAT%@    2. WET CORN SALES@, 27X,F10.0,F15.0<                  -PT2   13
215   FORMAT%@    3. STORED CORN SALES@,24X,F10.0,F15.0<                -PT2   14
216   FORMAT%@    4. DRY SOYBEAN SALES@,24X,F10.0,F15.0<                RPT2   15
217   FORMAT%@    5. WET SOYBEAN SALES@,24X,F10.0,F15.0<                RPT2   16
218   FORMAT%@    6. STORED SOYBEAN SALES@,21X,F10.0,F15.0<             RPT2   17
219   FORMAT%@    7. WHEAT SALES@,30X,F10.0,F15.0<                      RPT2   18
221   FORMAT%@    9. SILAGE@,35X,F10.0,F15.0<                           RPT2   19
222   FORMAT%@    9. LAND RENTED OUT@,26X,F10.0,F15.0<                  RPT2   20
223   FORMAT%@   10. COMBINING HIRED OUT@,22X,F10.0,F15.0<              RPT2   21
224   FORMAT%48X,10%1H-<,5X,9%1H-<<                                     JEF30   1
225   FORMAT%16H     TOTAL INCOME,31X,F10.0,F15.0<                      RPT2   23
2241  FORMAT%48X,10%1H=<,5X,9%1H=<<                                     JEF30   2
 226  FORMAT%26H   ALLOCATED VARIABLE COSTS<                            RPT2   25
227   FORMAT%@    1. FERTILIZER@,31X,F10.0,F15.0<                       RPT2   26
228   FORMAT%@    2. SEED@,37X,F10.0,F15.0<                             -PT2   27
229   FORMAT%@    3. INSECTICIDE AND/OR HERBICIDE@,13X,F10.0,F15.0<     RPT2   28
230   FORMAT%@    4. FUEL,LUBRICANT,REPAIRS@,19X,F10.0,F15.0<           RPT2   29
231   FORMAT%@    5. DRYING AT FARM@,27X,F10.0,F15.0<                   RPT2   30
232   FORMAT%@    6. DRYING AT ELEVATOR@,23X,F10.0,F15.0<               RPT2   31
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      IF%RSOL%I,1<.GE..0.AND.RSOL%I,2<.GE.0.< GO TO 4240                    RPT1  286
      ISW#ISW&1                                                             RPT1  287
      IF %ISW-1< 425,426,426                                                RPT1  288
425   WRITE%IO,18<                                                          RPT1  289
18    FORMAT%@   CORN ONLY COMBINE@<                                        RPT1  290
426   K#K&1                                                                 RPT1  291
      J#I-98                                                                RPT1  292
      M#I-54                                                                RPT1  293
      WRITE%IO,205< K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%M,L<,L#1,2<                RPT1  294
4240  CONTINUE                                                              RPT1  295
427   IF %R%491<.EQ.0.< GO TO 434                                           RPT1  296
      ISW#-1                                                                RPT1  297
      DO 428 I#107,109                                                      RPT1  298
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 428                    RPT1  299
      ISW#ISW&1                                                             RPT1  300
      IF %ISW-1< 429,430,430                                                RPT1  301
429   WRITE%IO,19<                                                          RPT1  302
19    FORMAT%@   SOYBEANS--CORN-SOYBEAN@/@   COMBINE@<                      RPT1  303
430   K#K&1                                                                 RPT1  304
      J#I-96                                                                RPT1  305
      M#I-32                                                                RPT1  306
      WRITE%IO,205< K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%M,L<,L#1,2<                RPT1  307
428   CONTINUE                                                              RPT1  308
      ISW#-1                                                                RPT1  309
      DO 431 I#95,97                                                        RPT1  310
      IF %RSOL%I,1<.GE.0..AND.RSOL%I,2<.GE.0.< GO TO 431                    RPT1  311
      ISW#ISW&1                                                             RPT1  312
      IF %ISW-1< 432,433,433                                                RPT1  313
432   WRITE%IO,20<                                                          RPT1  314
20    FORMAT%@   CORN--CORN-SOYBEAN@/@   COMBINE@<                          RPT1  315
433   K#K&1                                                                 RPT1  316
      J#I-83                                                                RPT1  317
      M#I-17                                                                RPT1  318
      WRITE%IO,205< K,%NAM2%J,JJ<,JJ#1,2<,%RSHAD%M,L<,L#1,2<                RPT1  319
431   CONTINUE                                                              RPT1  320
434   WRITE%IO,253<                                                         RPT1  321
      WRITE%IO,254<                                                         RPT1  322
 253  FORMAT%3X,62%1H*<<                                                    RPT1  323
254   FORMAT%1HO,7X,@--YOU KNOW ALL OF A RESOURCE WAS USED WHEN IT APPEARPT1  324
     1RS IN THIS@/8X,@TABLE.  IF YOU COULD SOMEHOW ACQUIRE ONE MORE UNIT-PT1  325
     2 (AT NO@/8X,@CHARGE), NET PROFIT WOULD INCREASE BY THE AMOUNT IN CRPT1  326
     3OLUMN 1.@<                                                          RPT1  327
      RETURN                                                                RPT1  329
      END                                                                   RPT1  330
      SUBROUTINE ARTSIL                                                     ARTSI   1
      REAL*8 IDENT                                                          CHNG   10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,JEF18   1
     1ACHK%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,      CUMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,   COMDI   3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<COMDI   4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,      COMDI   5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO        COMDI   6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                     JEF27   1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                    JEF34   1
      COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,        COMMN   1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6<   COMMN   2
     2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                         JEF8    1
     3,TAB3%16,9<                                                          JEF34   1
      IOUT#0                                                                ARTSI   4
      ICOL#179                                                              ARTSI   5
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      WRITE%6,2241<                                                          RPT2   93
      WRITE%6,235<                                                           RPT2   94
      WRITE%6,236<%UVCT%I,1<,I#1,2<                                          RPT2   95
      WRITE%6,237<%UVCT%I,2<,I#1,2<                                          RPT2   96
      WRITE%6,224<                                                           RPT2   97
      WRITE%IO,239<%UVCT%I,3<,I#1,2<                                         RPT2   98
      WRITE%6,2241<                                                          RPT2   99
      WRITE%6,240<                                                           RPT2  100
      WRITE%IO,241< %FCT%I,1<,I#1,2<                                         RPT2  101
      WRITE%IO,242< %FCT%I,2<,I#1,2<                                         RPT2  102
      WRITE%IO,243<%FCT%I,3<,I#1,2<                                          RPT2  103
      WRITE%6,224<                                                           RPT2  104
      WRITE%6,244<%FCT%I,4<,I#1,2<                                           RPT2  105
      WRITE%6,2241<                                                          RPT2  106
      WRITE%6,245<%TCSTS%I<,I#1,2<                                           RPT2  107
      WRITE%6,2241<                                                          RPT2  108
      WRITE%6,246<%PROFT%I<,I#1,2<                                           RPT2  109
      WRITE%6,2241<                                                          RPT2  110
      WRITE%6,210<                                                           RPT2  111
      RETURN                                                                 RPT2  112
      END                                                                    RPT2  113
      SUBROUTINE RPT3                                                        RPT3    1
      REAL*8 IDENT                                                           CHNG   10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,     JEF18   1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,         COMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,     COMDI   3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<    COMDI   4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,       COMDI   5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO         COMDI   6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                      JEF27   1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                     JEF34   1
      COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,         COMMN   1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6<     COMMN   2
     2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                          JEF8    1
     3,TAB3%16,9<                                                           JEF34   1
      DIMENSION VC1%2,9<,TSALES%2<,RATC%5<                                  RPT3    4
  209 FORMAT%2HO ,128%1H*</1HO<                                             RPT3    5
  210 FORMAT%1H1,98X,@O.S.U. CROPPING BUDGET PAGE@,I4/@  TABLE 3. PROJECRPT3    6
     1TED ANNUAL PROFIT AND LOSS STATEMENT FOR THE OPTIMUM PLAN@<           RPT3    7
  211 FORMAT%1HO,59X,4HCORN,9X,10HSOYBEANS-*,10X,5HWHEAT,10X,@SILAGE@,10RPT3    8
     1X,@TOTAL@<                                                            RPT3    9
  212 FORMAT%17HO A 1. SALES(FROM,F5.0,8H A.CORN,F4.0,11H A.SOYBEANS/       RPT3   10
     114X,F4.0,@ A.SILAGE@,F5.0,@ A.WHEAT OF WHICH@,/,                      RPT3   11
     214X,F4.0,@ A.DOUBLE CROP SOYBEANS)@,16X,@$@,F7.0,8X,1H$,F7.0,8X,1HRPT3   12
     3$,F7.0,8X,1H$,F7.0,8X,1H$,F7.0<                                       RPT3   13
  213 FORMAT%35H    2. CUSTOM COMBINING HIRED OUT (,F5.0,6H HRS.),F20.0,RPT3   14
     1 2F16.0,F32.0<                                                        RPT3   15
  214 FORMAT%24H    3. LAND RENTED OUT (,F5.0,@ ACRES)@,87X,F7.0/122X,      RPT3   16
     *  8%1H-<<                                                            RPT3   17
  215 FORMAT%33H  B LESS-ALLOCATED VARIABLE COSTS<                          RPT3   18
  216 FORMAT%7X,13H1. FERTILIZER,38X,1H$,F7.0,4%8X,1H$,F7.0<<               RPT3   19
  217 FORMAT%7X,@2. SEED          @,36X,F7.0,4F16.0<                        RPT3   20
  218 FORMAT%7X,31H3. INSECTICIDE AND/OR HERBICIDE,21X,F7.0,4F16.0<         RPT3   21
  219 FORMAT%7X,26H4. FUEL,LUBRICANTS,REPAIRS,26X,F7.0,4F16.0<              RPT3   22
  220 FORMAT%7X,17H5. DRYING AT FARM,35X,F7.0,F16.0,41X,F7.0<               RPT3   23
  221 FORMAT%7X,21H6. DRYING AT ELEVATOR,31X,F7.0,F16.0,41X,F7.0<           RPT3   24
  222 FORMAT%7X,28H7. INTEREST ON OP.FUNDS,MISC,F31.0,4F16.0<               RPT3   25
  223 FORMAT%7X,33H9. TOTAL ALLOCATED VARIABLE COSTS,F26.0,4F16.0/58X       RPT3   26
     18%1H-<,8X,8%1H-<,8X,8%1H-<,8X,8%1H-<,8X,8%1H-<<                       RPT3   27
  224 FORMAT%6X,38H10. RETURN TO ALLOCATED VARIABLE COSTS,F22.0,4F16.0/     RPT3   28
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233   FORMAT%@    7. INTEREST ON OP. FUNDS,MISC.@,14X,F10.0,F15.0<          -PT2   32
234   FORMAT%34H     TOTAL ALLOCATED VARIABLE COSTS,13X,F10.0,F15.0<         RPT2   33
 235  FORMAT%28H  UNALLOCATED VARIABLE COSTS<                                RPT2   34
236   FORMAT%@    1. ADDED LAND RENTAL@,24X,F10.0,F15.0<                     RPT2   35
237   FORMAT%@    2. PART-TIME HIRED LABOR@,20X,F10.0,F15.0<                 RPT2   36
238   FORMAT%@    8. CUSTOM COMBINING HIRED IN@,16X,F10.0,F15.0<             RPT2   37
239   FORMAT%36H     TOTAL UNALLOCATED VARIABLE COSTS,11X,F10.0,F15.0<       RPT2   38
 240  FORMAT%13H  FIXED COSTS<                                               RPT2   39
241   FORMAT%@    1. FIXED MACHINERY COSTS@,20X,F10.0,F15.0<                 RPT2   40
242   FORMAT%@    2. FIXED LABOR COSTS@,24X,F10.0,F15.0<                     RPT2   41
243   FORMAT%@    3. FIXED LAND COSTS@,25X,F10.0,F15.0<                      RPT2   42
244   FORMAT%21H     TOTAL FIXED COSTS,26X,F10.0,F15.0<                      RPT2   43
245   FORMAT%15H     TOTAL COSTS,32X,F10.0,F15.0<                            RPT2   44
246   FORMAT%40H     RETURNS TO MGT. BEFORE INCOME TAXES ,7X,F10.0,          RPT2   45
     *F15.0<                                                                 RPT2   46
248   FORMAT%32H **INCLUDES DOUBLE CROP SOYBEANS<                            RPT2   48
C  ZERO OUT SOLUTION ARRAYS                                                  RPT2   49
      IPAGE#IPAGE&1                                                         RPT2   50
      CALL IDATIM%IY,IM,ID,IT<                                              RPT2   51
      WRITE%IO,200< IPAGE,IM,ID,IY                                          RPT2   52
      WRITE%IO,202< IDENT,%HEAD%I<,I#1,10<                                  RPT2   53
      WRITE%IO,210<                                                         RPT2   54
      WRITE%IO,211<                                                         RPT2   55
      WRITE%IO,212<                                                         RPT2   56
      WRITE%6,213<  %SOL%J,2<,J#1,2<                                        RPT2   57
      WRITE%6,214< %SOL%J,1<,J#1,2<                                         RPT2   58
      WRITE%6,215< %SOL%J,3 <,J#1,2<                                        RPT2   59
      TEM1#SOL%1,5<&SOL%1,9<                                                RPT2   60
      TEM2#SOL%2,5<&SOL%2,9<                                                RPT2   61
      WRITE%IO,216< TEM1,TEM2                                               RPT2   62
      TEM1#SOL%1,4<&SOL%1,8<                                                RPT2   63
      TEM2#SOL%2,4<&SOL%2,8<                                                RPT2   64
      WRITE%IO,217< TEM1,TEM2                                               RPT2   65
      TEM1#SOL%1,6<&SOL%1,11<                                               RPT2   66
      TEM2#SOL%2,6<&SOL%2,11<                                               RPT2   67
      WRITE%IO,218< TEM1,TEM2                                               RPT2   68
      WRITE%6,219< %SOL%J,7 <,J#1,2<                                        RPT2   69
      WRITE%IO,221<%SOL%J,10<,J#1,2<                                        RPT2   70
      WRITE%IO,222< %SOL%J,12<,J#1,2<                                       RPT2   71
      TEM1#0.                                                               RPT2   72
      TEM2#0.                                                               RPT2   73
      DO 102 I#13,15                                                        RPT2   74
      TEM1#TEM1&SOL%1,I<                                                    RPT2   75
      TEM2#TEM2&SOL%2,I<                                                    RPT2   76
102   CONTINUE                                                              RPT2   77
      WRITE%IO,223< TEM1,TEM2                                               RPT2   78
      WRITE%6,224<                                                          RPT2   79
      WRITE%IO,225< %SOL%J,16<,J#1,2<                                       RPT2   80
      WRITE%6,2241<                                                         RPT2   81
      WRITE%6,226<                                                          RPT2   82
      WRITE%6,227<%AVCT%I,1<,I#1,2<                                         RPT2   83
      WRITE%6,228<%AVCT%I,2<,I#1,2<                                         RPT2   84
      WRITE%6,229<%AVCT%I,3<,I#1,2<                                         RPT2   85
      WRITE%6,230<%AVCT%I,4<,I#1,2<                                         RPT2   86
      WRITE%6,231<%AVCT%I,5<,I#1,2<                                         RPT2   87
      WRITE%6,232<%AVCT%I,6<,I#1,2<                                         RPT2   88
      WRITE%6,233<%AVCT%I,7<,I#1,2<                                         RPT2   89
      WRITE%IO,238< %AVCT%I,8<,I#1,2<                                       RPT2   90
      WRITE%6,224<                                                          RPT2   91
      WRITE%IO,234< %AVCT%I,9<,I#1,2<                                       RPT2   92
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 1050 CONTINUE                                                                  RPT3   89
      DO 1070 I#8,9                                                             RPT3   90
      VC1%2,8<#VC1%2,8<&VC%IRNK,I,7<                                            RPT3   91
 1070 CONTINUE                                                                  RPT3   92
      VC1%2,8<#VC1%2,8<&VC%IRNK,11,7<                                           RPT3   93
      DO 107 I#1,8                                                              RPT3   94
      VC1%1,9<#VC1%1,9<&VC1%1,I<                                                RPT3   95
      VC1%2,9<#VC1%2,9<&VC1%2,I<                                                RPT3   96
  107 CONTINUE                                                                  RPT3   97
      IPAGE#IPAGE&1                                                             RPT3   98
      WRITE%IO,210< IPAGE                                                       RPT3   99
      WRITE%6,211<                                                              RPT3  100
      WRITE%IO,212<%TACR%IRNK,I<,I#1,2<,ACRES%IRNK,10<,ACRES%IRNK,7<,           RPT3  101
     1TACR%IRNK,3<,%TSALES%I<,I#1,2<,SOL%IRNK,7<,SOL%IRNK,10<,GSALES            RPT3  102
      TEM1#0                                                                    RPT3  103
      DO 108 I#13,15                                                            RPT3  104
      TEM1#TEM1&SOL%IRNK,I<                                                     RPT3  105
  108 CONTINUE                                                                  RPT3  106
      WRITE%IO,213<TCOMB%IRNK<,SOL%IRNK,13<,SOL%IRNK,14<,SOL%IRNK,15<,          RPT3  107
     *TEM1                                                                      RPT3  108
      WRITE%IO,214<BCSOL%IRNK,2,1<,SOL%IRNK,12<                                 RPT3  109
      WRITE%6,215<                                                              RPT3  110
      WRITE%IO,216<%VC1%I,1<,I#1,2<,VC%IRNK,7,1<,VC%IRNK,10,1<,AVCT%IRNK        RPT3  111
     1,1<                                                                       RPT3  112
      WRITE%IO,217<%VC1%I,2<,I#1,2<,VC%IRNK,7,2<,VC%IRNK,10,2<,AVCT%IRNK        RPT3  113
     1,2<                                                                       RPT3  114
      WRITE%IO,218<%VC1%I,3<,I#1,2<,VC%IRNK,7,3<,VC%IRNK,10,3<,AVCT%IRNK        RPT3  115
     1,3<                                                                       RPT3  116
      WRITE%IO,219<%VC1%I,4<,I#1,2<,VC%IRNK,7,4<,VC%IRNK,10,4<,AVCT%IRNK        RPT3  117
     1,4<                                                                       RPT3  118
      WRITE%IO,220<%VC1%I,5<,I#1,2<,AVCT%IRNK,5<                                RPT3  119
      WRITE%IO,221<%VC1%I,6<,I#1,2<,AVCT%IRNK,6<                                RPT3  120
      WRITE%IO,222<%VC1%I,7<,I#1,2<,VC%IRNK,7,6<,VC%IRNK,10,6<,AVCT%IRNK        RPT3  121
     1,7<                                                                       RPT3  122
      WRITE%IO,228<TCOMBI%IRNK<,%VC1%I,8<,I#1,2<,VC%IRNK,7,7<,VC%IRNK,          RPT3  123
     1 10,7<,AVCT%IRNK,8<                                                       RPT3  124
      WRITE%IO,223<%VC1%I,9<,I#1,2<,VC%IRNK,7,8<,VC%IRNK,10,8<,AVCT%IRNK        RPT3  125
     1,9<                                                                       RPT3  126
C RETURN TO ALLOCATED COSTS                                                     RPT3  127
      RATC%1<#TSALES%1<&SOL%IRNK,13<-VC1%1,9<                                   RPT3  128
      RATC%2<#TSALES%2<&SOL%IRNK,14<-VC1%2,9<                                   RPT3  129
      RATC%3<#SOL%IRNK,7<&SOL%IRNK,15<-VC%IRNK,7,8<                             RPT3  130
      RATC%4<#SOL%IRNK,10<-VC%IRNK,10,8<                                        RPT3  131
      RATC%5<#0.                                                                RPT3  132
      DO 109 I#12,14                                                            RPT3  133
      RATC%5<#RATC%5<&SOL%IRNK,I<                                               RPT3  134
  109 CONTINUE                                                                  RPT3  135
      RATC%5<#RATC%5<&GSALES-AVCT%IRNK,9<                                       RPT3  136
      WRITE%IO,224<%RATC%I<,I#1,5<                                              RPT3  137
C UNALLOCATED VARIABLE COSTS                                                    RPT3  138
      WRITE%IO,225<                                                             RPT3  139
      WRITE%IO,226<BCSOL%IRNK,3,1<,R%31<,UVCT%IRNK,1<                           RPT3  140
      HLAB#0.                                                                   RPT3  141
      DO 110 I#4,15                                                             RPT3  142
      HLAB#HLAB&BCSOL%IRNK,I,1<                                                 RPT3  143
  110 CONTINUE                                                                  RPT3  144
      WRITE%IO,227< UVCT%IRNK,2<                                                RPT3  145
      T#RATC%5<-UVCT%IRNK,3<                                                    RPT3  146
      WRITE%IO,229< T                                                           RPT3  147
C FIXED COSTS                                                                   RPT3  148
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     158X,8%1H=<,8X,8%1H=<,8X,8%1H=<,8X,8%1H=<,8X,8%1H=<<                    RPT3   29
  225 FORMAT%35HO C LESS-UNALLOCATED VARIABLE COSTS<                         RPT3   30
  226 FORMAT%7X,22H1. ADDED LAND RENTAL (,F6.1,6H A.X $,F6.2,1H),75X,        RPT3   31
     1F7.0<                                                                 RPT3   32
  227 FORMAT%7X,@2. PART-TIME HIRED LABOR@,92X,F7.0/122X,8%1H=<<            RPT3   33
  228 FORMAT%7X,30H8. CUSTOM COMBINING HIRED IN (,F5.0,6H HRS.),F18.0,      RPT3   34
     1 4F16.0<                                                              RPT3   35
  229 FORMAT%7X,43H3. GROSS PROFIT(RETURNS TO FIXED RESOURCES),73X,F7.0     RPT3   36
     1/,122X,8%1H=<<                                                        RPT3   37
  230 FORMAT%22HO D LESS - FIXED COSTS<                                     RPT3   38
  231 FORMAT%7X,24H1. FIXED MACHINERY COSTS,92X,F7.0<                       RPT3   39
  232 FORMAT%7X,20H2. FIXED LABOR COSTS,96X,F7.0<                           RPT3   40
  233 FORMAT%7X,21H3. FIXED LAND COSTS (,F4.0,6H A.X $,F6.2,2H +/10X,       RPT3   41
     1F5.0,6H A.X $,F6.2,1H),95X,F7.0/122X,8%1H-<<                          RPT3   42
  234 FORMAT%7X,20H4. TOTAL FIXED COSTS,96X,F7.0,/,122X,8%1H=<<             RPT3   43
  235 FORMAT%53H  E NET PROFIT (RETURNS TO MGMT. BEFORE INCOME TAXES),      RPT3   44
     *70X,F7.0/122X,8%1H=<<                                                 RPT3   45
  236 FORMAT%2X,@* INCLUDES DOUBLE CROP SOYBEANS@<                          RPT3   46
      DO 301 I#1,2                                                          RPT3   47
      TSALES%I<#0.                                                          RPT3   48
      DO 301 J#1,9                                                          RPT3   49
  301 VC1%I,J<#0.                                                           RPT3   50
      GSALES#0.                                                             RPT3   51
      DO 100 I#1,3                                                          RPT3   52
      TSALES%1<#TSALES%1<&SOL%IRNK,I<                                       RPT3   53
      TSALES%2<#TSALES%2<&SOL%IRNK,I&3<                                     RPT3   54
  100 CONTINUE                                                              RPT3   55
      DO 101 I#8,9                                                          RPT3   56
      TSALES%2<#TSALES%2<&SOL%IRNK,I<                                       RPT3   57
  101 CONTINUE                                                              RPT3   58
      TSALES%2<#TSALES%2<&SOL%IRNK,11<                                      RPT3   59
      GSALES#TSALES%1<&TSALES%2<&SOL%IRNK,7<&SOL%IRNK,10<                   RPT3   60
      DO 102 I#1,4                                                          RPT3   61
      DO 103 J#1,3                                                          RPT3   62
      VC1%1,I<#VC1%1,I<&VC%IRNK,J,I<                                        RPT3   63
      VC1%2,I<#VC1%2,I<&VC%IRNK,J&3,I<                                      RPT3   64
  103 CONTINUE                                                              RPT3   65
  102 CONTINUE                                                              RPT3   66
      DO 104 I#1,4                                                          RPT3   67
      DO 105 J#8,9                                                          RPT3   68
      VC1%2,I<#VC1%2,I<&VC%IRNK,J,I<                                        RPT3   69
  105 CONTINUE                                                              RPT3   70
      VC1%2,I<#VC1%2,I<&VC%IRNK,11,I<                                       RPT3   71
  104 CONTINUE                                                              RPT3   72
      VC1%1,5<#VC%IRNK,2,5<&VC%IRNK,3,5<                                    RPT3   73
      VC1%2,5<#VC%IRNK,5,5<&VC%IRNK,6,5<&VC%IRNK,9,5<                       RPT3   74
     1&VC%IRNK,11,5<                                                        RPT3   75
      VC1%1,6<#VC%IRNK,1,5<                                                 RPT3   76
      VC1%2,6<#VC%IRNK,4,5<&VC%IRNK,8,5<                                    RPT3   77
      DO 1040 J#1,3                                                         RPT3   78
      VC1%1,7<#VC1%1,7<&VC%IRNK,J,6<                                        RPT3   79
      VC1%2,7<#VC1%2,7<&VC%IRNK,J&3,6<                                      RPT3   80
 1040 CONTINUE                                                              RPT3   81
      DO 106 J#8,9                                                          RPT3   82
      VC1%2,7<#VC1%2,7<&VC%IRNK,J,6<                                        RPT3   83
  106 CONTINUE                                                              RPT3   84
      VC1%2,7<#VC1%2,7<&VC%IRNK,11,6<                                       RPT3   85
      DO 1050 I#1,3                                                         RPT3   86
      VC1%1,8<#VC1%1,8<&VC%IRNK,I,7<                                        RPT3   87
      VC1%2,8<#VC1%2,8<&VC%IRNK,I&3,7<                                      RPT3   88
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      WRITE%IO,203< %PRICE%I<,I#1,7<,PRICE%10<                          RPT4   40
      TEM1#SOL%IRNK,4<&SOL%IRNK,8<                                      RPT4   41
      TEM2#SOL%IRNK,5<&SOL%IRNK,9<                                      RPT4   42
      TEM3#SOL%IRNK,6<&SOL%IRNK,11<                                     RPT4   43
      WRITE%IO,204<%SOL%IRNK,I<,I#1,3<,TEM1,TEM2,TEM3,SOL%IRNK,7<,      RPT4   44
     1SOL%IRNK,10<                                                      RPT4   45
      WRITE%IO,205< %AVY%IRNK,I<,I#1,8<                                 RPT4   46
      WRITE%IO,206< AMOI%IRNK,1<,AMOI%IRNK,1<,AMOI%IRNK,2<,AMOI%IRNK,2< RPT4   47
      WRITE%IO,207< %AVS%IRNK,I<,I#1,8<                                 RPT4   48
      WRITE%IO,208< %AVC%IRNK,I<,I#1,8<                                 RPT4   49
      WRITE%IO,209< %AVRT%IRNK,I<,I#1,8<                                RPT4   50
      WRITE%IO,210<                                                     RPT4   51
      RETURN                                                            RPT4   52
      END                                                               RPT4   53
      SUBROUTINE RPT56                                                  RPT56   1
      REAL*8 IDENT                                                      CHNG   10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,JEF18   1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,    COMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<, COMDI   3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<COMDI   4
     4.AWOR<%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,   COMDI   5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO     COMDI   6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                  JEF27   1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                 JEF34   1
      COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,     COMMN   1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6< COMMN   2
     2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                      JEF8    1
     3,TAB3%16,9<                                                       JEF34   1
      DIMENSION AVYLD%4<                                                RPT56   4
  198 FORMAT%1HO<                                                       RPT56   5
  199 FORMAT%1H1,88X,27HO.S.U. CROPPING BUDGET PAGE,I4<                 RPT56   6
  201 FORMAT%77HO  TABLE 5. PROJECTED CORN PRODUCTION BY DATE OF PLANTINRPT56   8
     1G AND HARVESTING DATE<                                            RPT56   9
  250 FORMAT %80HO  TABLE 6. PROJECTED SOYBEAN PRODUCTION BY DATE OF PLARPT56  10
     1NTING AND HARVESTING DATE<                                        RPT56  11
  202 FORMAT%1HO,51X,17HHARVESTING PERIOD,39X,9HTOTAL BU.<              RPT56  12
  203 FORMAT%90X,11HTOTAL ACRES,7X,9HFROM THIS<                         RPT56  13
  204 FORMAT %34X,13HSEP.27-OCT.17,7X,12HOCT.18-NOV.7,8X,12HNOV.8-NOV.28RPT56  14
     1,6X,7HPLANTED,6X,15HPLANTING PERIOD<                              RPT56  15
  251 FORMAT%34X,13HSEP.13-SEP.26,7X,13HSEP.27-OCT.17,7X,12HOCT.18-NOV.7RPT56  16
     16X,7HPLANTED,6X,15HPLANTING PERIOD<                               RPT56  17
  205 FORMAT %4X,15HPLANTING PERIOD,11X,58HACRES   PRODUCTION  ACRES   PRPT56  18
     1RODUCTION  ACRES   PRODUCTION<                                   RPT56  19
  206 FORMAT %18HO  A.APR.26-MAY  2,F18.1,F10.0,F10.1,F10.0,F10.1,F10.0,RPT56  20
     1F12.2,F17.0<                                                      RPT56  21
  207 FORMAT%18H   B.MAY  3-MAY  9,F18.1,F10.0,F10.1,F10.0,F10.1,F10.0, RPT56  22
     1F12.2,F17.0<                                                      RPT56  23
  208 FORMAT %18H   C.MAY 10-MAY 16,F18.1,F10.0,F10.1,F10.0,F10.1,F10.0,RPT56  24
     1F12.2,F17.0<                                                      RPT56  25
  209 FORMAT %18H   D.MAY 17-MAY 23,F18.1,F10.0,F10.1,F10.0,F10.1,F10.0,RPT56  26
     1F12.2,F17.0<                                                      RPT56  27
  210 FORMAT %18H   E.MAY 24-MAY 30,F18.1,F10.0,F10.1,F10.0,F10.1,F10.0,RPT56  28
     1F12.2,F17.0<                                                      RPT56  29
  211 FORMAT%18H   F.MAY 31-JUNE 6,F18.1,F10.0,F10.1,F10.0,F10.1,F10.0, RPT56  30
     1F12.2,F17.0<                                                      RPT56  31
  212 FORMAT%29X,7%1H-<,2X,10H----------,1X,7H-------<,2X,10%1H-<,2X,   RPT56  32
     111%1H-<,4X,15%1H-<<                                               RPT56  33
  213 FORMAT%28H   G.TOTAL ACRES AND BUSHELS,F8.1,F10.0,F10.1,F10.0,    RPT56  34
     1F10.1,F10.0,F12.1,F17.0<                                          RPT56  35
  214 FORMAT %22H   H.AV.YIELD PER ACRE,F24.0,2F20.0,F29.0<              RPT56  36
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      WRITE%IO,230<                                                          RPT3  149
      WRITE%IO,231< FCT%IRNK,1<                                              RPT3  150
      WRITE%IO,232< FCT%IRNK,2<                                              RPT3  151
      WRITE%IO,233< R%28<,R%29<,R%561<,R%562<,FCT%IRNK,3<                    RPT3  152
      WRITE%IO,234<FCT%IRNK,4<                                               RPT3  153
      WRITE%IO,235<PROFT%IRNK<                                               RPT3  154
      WRITE%IO,209<                                                          RPT3  155
      WRITE%IO,236<                                                          RPT3  156
      RETURN                                                                 RPT3  157
      END                                                                    RPT3  158
      SUBROUTINE RPT4                                                        RPT4    1
      REAL*8 IDENT                                                           CHNG   10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,     JEF18   1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,         COMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,     COMDI   3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<     COMDI   4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,        COMDI   5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO          COMDI   6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                      JEF27   1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                     JEF34   1
      COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,          COMMN   1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6<     COMMN   2
     2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                          JEF8    1
     3,TAB3%16,9<                                                           JEF34   1
  200 FORMAT%1H1,89X,27HO.S.U. CROPPING BUDGET PAGE,I4/@0  TABLE 4. PROJ     RPT4    4
     1ECT SUMMARY OF LAND USE,YIELDS AND INCOME FROM CORN,SOYBEANS,WHEAT     RPT4    5
     2 AND SILAGE FOR THE OPTIMUM PLAN@/@0@,52X,@CORN     CORN      CORN    RPT4    6
     3  SOYBEANS  SOYBEANS  SOYBEANS  WHEAT  SILAGE@/54X,@WET      DRY      RPT4    7
     4  STORED      WET       DRY      STORED@<                              RPT4    8
  201 FORMAT%26HO  A. TOTAL ACREAGE(ACRES),24X,F6.0,3F9.0,2F10.0             RPT4    9
     1,F8.0,F9.0,F10.0<                                                     RPT4   10
  202 FORMAT%47HO  B. TOTAL PRODUCTION (BUSHELS,SILAGE IN TONS),3F9.0,F9     RPT4   11
     1.0,F10.0,F10.0,F8.0,F9.0,F10.0<                                       RPT4   12
  203 FORMAT%49HO  C. SELLING PRICE (NET OF TRUCK CHARGES) ($/BU),F7.2,2     RPT4   13
     1F9.2,F9.2,F10.2,F10.2,F8.2,F9.2,F10.2<                                RPT4   14
  204 FORMAT%21HO  D. TOTAL SALES ($),28X,F7.0,2F9.0,F9.0,F10.0,F10.0,F8     RPT4   15
     1.0,F9.0,F10.0<                                                        RPT4   16
  205 FORMAT%49HO  E. AVERAGE YIELD (BU/ACRE,SILAGE IN TONS/ACRE),F7.1,2     RPT4   17
     1F9.1,F9.1,F10.1,F10.1,F8.1,F9.1,F10.1<                                RPT4   18
  206 FORMAT%38HO  F. AVERAGE HARVEST MOISTURE PERCENT,18X,2F9.2,9X,         RPT4   19
     1 2F10.2<                                                              RPT4   20
  207 FORMAT%37HO  G. AVERAGE SALES PER ACRE ($/ACRE),12X,F7.1,2F9.1,F9.     RPT4   21
     11,F10.1,F10.1,F8.1,F9.1,F10.1<                                        RPT4   22
  208 FORMAT%46HO  H. AVERAGE VARIABLE COSTS PER ACRE ($/ACRE),4X,F6.0,2     RPT4   23
     1F9.0,F9.0,F10.0,F10.0,F8.0,F9.0,F10.0<                                RPT4   24
  210 FORMAT%1HO,2X,118%1H*<<                                               RPT4   25
  209 FORMAT%50HO  I. AVE. RETURN TO UNALLOCATED VAR. COST($/ACRE),F6.0,     RPT4   26
     12F9.0,F9.0,F10.0,F10.0,F8.0,F9.0,F10.0<                               RPT4   27
      IPAGE#IPAGE&1                                                         RPT4   28
      WRITE%IO,200< IPAGE                                                   RPT4   29
      TEM1#ACRES%IRNK,4<&ACRES%IRNK,8<                                      RPT4   30
      TEM2#ACRES%IRNK,5<&ACRES%IRNK,9<                                      RPT4   31
      TEM3#ACRES%IRNK,6<&ACRES%IRNK,11<                                     RPT4   32
      WRITE%IO,201<%ACRES%IRNK,I<,I#1,3<,TEM1,TEM2,TEM3,ACRES%IRNK,7<       RPT4   33
     1,ACRES%IRNK,10<                                                       RPT4   34
      TEM1#PROD%IRNK,4<&PROD%IRNK,8<                                        RPT4   35
      TEM2#PROD%IRNK,5<&PROD%IRNK,9<                                        RPT4   36
      TEM3#PROD%IRNK,6<&PROD%IRNK,11<                                       RPT4   37
      WRITE%IO,202<%PROD%IRNK,I<,I#1,3<,TEM1,TEM2,TEM3,PROD%IRNK,7<,        RPT4   38
     1PROD%IRNK,10<                                                         RPT4   39
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      DIMENSION TAB7%10<                                                        RPT7    4
   70 FORMAT%@0  TABLE 7. PROJECTED WHEAT AND DOUBLE CROP SOYBEAN PRODUC       RPT7    5
     $TION BY DATE OF PLANTING AND HARVESTING DATE@<                            RPT7    6
   71 FORMAT%1HO,/,1HO,/,29X,@HARVESTING PERIOD@<                               RPT7    7
   73 FORMAT%1HO,3X,5X,@WHEAT@,16X,@JUNE 14 - JULY 18@<                         RPT7    8
   75 FORMAT%1H ,3X,@PLANTING PERIOD@,11X,@ACRES   PRODUCTION@<                 RPT7    9
   77 FORMAT%1HO,2X,@A.SEP.27-OCT.17@,8X,F10.1,F10.0<                           RPT7   10
   79 FORMAT%3X,@B.OCT.18-NOV. 7@,8X,F10.1,F10.0<                               RPT7   11
   81 FORMAT%29X,7%1H-<,2X,10%1H-<<                                             RPT7   12
   83 FORMAT%3X,@C.TOTAL ACRES AND BUSHELS@,F8.1,F10.0<                         RPT7   13
   85 FORMAT%3X,@D.AVERAGE YIELD (BU/ACRE)@,F18.0<                              RPT7   14
   87 FORMAT%29X,7%1H=<,2X,10%1H=<<                                             RPT7   15
   91 FORMAT%1HO,/1HO,3X,@DOUBLE CROP SOYBEANS@,6X,@OCT.18 - NOV.7@<            RPT7   16
   93 FORMAT%@0  E.JUNE14-JULY18@,F18.1,F10.0<                                  RPT7   17
   95  FORMAT %3X,@F.AVERAGE YIELD (BU/ACRE)@,F18.0<                            RPT7   18
  198 FORMAT %1HO<                                                              RPT7   19
  199 FORMAT %1H1,88X,27HO.S.U. CROPPING BUDGET PAGE,I4<                        RPT7   20
  216 FORMAT %3X,117%1H*<<                                                      RPT7   21
      DO 99 I#1,10                                                              RPT7   22
   99 TAB7%I<#0.                                                                RPT7   23
      TAB7%1<#RCOL%110,IRNK<                                                    RPT7   24
      TAB7%2<#RCOL%110,IRNK<*R%522<                                             RPT7   25
      TAB7%3<#RCOL%111,IRNK<                                                    RPT7   26
      TAB7%4<#RCOL%111,IRNK<*R%523<                                             RPT7   27
      TAB7%5<#TAB7%1<&TAB7%3<                                                   RPT7   28
      TAB7%6<#TAB7%2<&TAB7%4<                                                   RPT7   29
      IF%TAB7%5<.GT.0.< TAB7%7<#TAB7%6</TAB7%5<                                 RPT7   30
      TAB7%8<#RCOL%126,IRNK<&RCOL%127,IRNK<                                     RPT7   31
      TAB7%9<#TAB7%8<*R%535<                                                    RPT7   32
      IF%TAB7%8<.GT.0.< TAB7%10<#TAB7%9</TAB7%8<                                RPT7   33
      IF %%TAB7%5<&TAB7%8<<.EQ.0.< RETURN                                       RPT7   34
      WRITE%IO,198<                                                             RPT7   35
      IPAGE#IPAGE&1                                                             RPT7   36
      WRITE%IO,199< IPAGE                                                       RPT7   37
      WRITE%IO,70<                                                              RPT7   38
      WRITE%IO,71<                                                              RPT7   39
      WRITE%IO,73<                                                              RPT7   40
      WRITE%IO,75<                                                              RPT7   41
      WRITE%IO,77< %TAB7%I<,I#1,2<                                              RPT7   42
      WRITE%IO,79< %TAB7%I<,I#3,4<                                              RPT7   43
      WRITE%IO,81<                                                              RPT7   44
      WRITE%IO,83< %TAB7%I<,I#5,6<                                              RPT7   45
      WRITE%IO,85<  TAB7%7<                                                     RPT7   46
      WRITE%IO,87<                                                              RPT7   47
      WRITE%IO,71<                                                              RPT7   48
      WRITE%IO,91<                                                              RPT7   49
      WRITE%IO,75<                                                              RPT7   50
      WRITE%IO,93< %TAB7%I<,I#8,9<                                              RPT7   51
      WRITE%IO,81<                                                              RPT7   52
      WRITE%IO,95<  TAB7%10<                                                    RPT7   53
      WRITE%IO,87<                                                              RPT7   54
      WRITE%IO,216<                                                             RPT7   55
      RETURN                                                                    RPT7   56
      END                                                                       RPT7   57
      SUBROUTINE RPT8                                                           RPT8    1
      REAL*8 IDENT                                                              CHNG   10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,JEF18    1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,            COMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,         COMDI   3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<COMDI   4
```

```
215   FORMAT%29X,7%1H=<,2%2X,10H==========,1[illegible]7H=======<,2X,10%1H=<,2X,  RPT56  37
     111%1H=<,4X,15%1H=<<                                                          RPT56  38
216   FORMAT %3X,117%1H*<<                                                          RPT56  39
217   FORMAT%1HO/59HO  PLEASE NOTE--AN * INDICATES THE AMOUNT WAS LESS TRPT56  40
     1HAN ONE/1HO/1HO<                                                             RPT56  41
      IF %%TACR%IRNK,1<&TACR%IRNK,2<<.EQ.0.< GO TO 297                             RPT56  43
      IPAGE#IPAGE&1                                                                RPT56  44
      WRITE%IO,199< IPAGE                                                          RPT56  45
      DO 296 LOOP#1,2                                                              RPT56  46
      IF %TACR%IRNK,LOOP<.EQ.0.<GO TO 296                                          RPT56  47
      DO 306 I#1,4                                                                 RPT56  48
      AVYLD%I<#0.                                                                  RPT56  49
      IF %STACR%LOOP,I<.LE.0.< GO TO 306                                           RPT56  50
      AVYLD%I<#STPRD%LOOP,I</STACR%LOOP,I<                                         RPT56  51
306   CONTINUE                                                                     RPT56  52
      GO TO %307,308<,LOOP                                                         RPT56  53
307   WRITE%IO,201<                                                                RPT56  54
      WRITE %IO,202<                                                               RPT56  55
      WRITE %IO,203<                                                               RPT56  56
      WRITE %IO,204<                                                               RPT56  57
      WRITE %IO,205<                                                               RPT56  58
      GO TO 309                                                                    RPT56  59
308   IF%TACR%IRNK,1<.LT.1.< GO TO 310                                             RPT56  60
      WRITE %IO,198<                                                               RPT56  61
 310   CONTINUE                                                                    RPT56  62
311   WRITE %IO,250<                                                               RPT56  63
      WRITE %IO,202<                                                               RPT56  64
      WRITE %IO,203<                                                               RPT56  65
      WRITE %IO,251<                                                               RPT56  66
      WRITE %IO,205<                                                               RPT56  67
309   WRITE%IO,206<%TACRE%LOOP,1,I<,TPROD%LOOP,1,I<,I#1,4<                         RPT56  68
      WRITE%IO,207<%TACRE%LOOP,2,I<,TPROD%LOOP,2,I<,I#1,4<                         RPT56  69
      WRITE%IO,208<%TACRE%LOOP,3,I<,TPROD%LOOP,3,I<,I#1,4<                         RPT56  70
      WRITE%IO,209<%TACRE%LOOP,4,I<,TPROD%LOOP,4,I<,I#1,4<                         RPT56  71
      WRITE%IO,210<%TACRE%LOOP,5,I<,TPROD%LOOP,5,I<,I#1,4<                         RPT56  72
      WRITE%IO,211<%TACRE%LOOP,6,I<,TPROD%LOOP,6,I<,I#1,4<                         RPT56  73
      WRITE %IO,212<                                                               RPT56  74
      WRITE%IO,213<%STACR%LOOP,I<,STPRD%LOOP,I<,I#1,4<                             RPT56  75
      WRITE %IO,214< %AVYLD%I<,I#1,4<                                              RPT56  76
      WRITE %IO,215<                                                               RPT56  77
      WRITE %IO,216<                                                               RPT56  78
296   CONTINUE                                                                     RPT56  79
      IF %%TACR%IRNK,1<&TACR%IRNK,2<<.LE.0.< GO TO 297                             RPT56  80
      WRITE%IO,217<                                                                RPT56  81
297   RETURN                                                                       RPT56  82
      END                                                                          RPT56  83
      SUBROUTINE RPT7                                                              RPT7    1
      REAL*8 IDENT                                                                 CHNG   10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,JEF18    1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,     COMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,  COMDI   3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<COMDI   4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,     COMDI   5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO       COMDI   6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                    JEF27   1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                   JEF34   1
      COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,       COMMN   1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6<   COMMN   2
     2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                        JEF8    1
     3,TAB3%16,9<                                                         JEF34   1
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      3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<COMDI   4
      4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,    COMDI   5
      5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO      COMDI   6
      6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                   JEF27   1
      7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                  JEF34   1
       COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,      COMMN   1
      1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6<  COMMN   2
      2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                       JEF8    1
      3,TAB3%16,9<                                                        JEF34   1
       REAL*8 NAM1,NAM2                                                   CHNG   20
       EQUIVALENCE %NAM2%1,1<,NAM1%1<<                                    RPT9   12
       DIMENSION TOT1%6<,TOT2%4<,GTOT%14<,NAM1%30<,NAM2%15,2<             JEF8    1
       DATA NAM1          /8HA. MAR.1,8HB. APR. ,8HC. APR.2               RPT9    5
      1,8HD. MAY  ,8HE. MAY 1,8HF. MAY 1,8HG. MAY 2                       RPT9    6
      2,8HH. MAY 3,8HI. JUNE ,8HJ. JUNE1,8HK. SEP.1,                      RPT9    7
      3 8HL. SEP.2,8HM. OCT.1,8HN. NOV. ,8HO. NOV.2,8H5-APR.4             RPT9    8
      1,8H5-APR.25,8H6-MAY  2,8H3-MAY  9,8HO-MAY 16,8H7-MAY 23,8H4-MAY 30RPT9    9
      5,8H1-JUNE 6,8H7-JUNE13,8H4-JULY18,8H3-SEP.26,8H7-OCT.17,8H8-NOV. 7RPT9   10
      6,8H8-NOV.28,8H9-MAR.14/                                            JEF28   1
  199  FORMAT%1H1,68X,@O.S.U. CROPPING BUDGET PAGE@,I4/1HO<                JEF8    2
  200  FORMAT%3X,@TABLE 9. SCHEDULE OF MACHINE FIELD OPERATIONS (BASED ONJEF8    3
      1 FIELD HOURS AVAILABLE SEE TABLE 10.)@<                            JEF8    4
  201  FORMAT%1HO,23X,@ACRES  PREPARED@,15X,@ACRES  PLANTED@,11X,@POST@,  JEF8    5
      111X,@ACRES  HARVESTED@<                                            JEF8    6
  202  FORMAT%20X,@CORN AND@,51X,@PLANT@<                                  JEF8    7
  203  FORMAT%5X,@TIME PERIOD     SILAGE  SOYBEANS TOTAL  CORN SOYBEANS SJEF8    8
      1ILAGE WHEAT TOTAL  TOTAL  CORN SOYBEANS SILAGE WHEAT TOTAL@<       JEF8    9
       DO 100 I#1,6                                                       RPT9   21
       TOT1%I<#0.                                                         RPT9   22
  100  CONTINUE                                                           RPT9   23
       DO 101 I#1,4                                                       RPT9   24
       TOT2%I<#0.                                                         RPT9   25
  101  CONTINUE                                                           RPT9   26
       DO 102 I#1,14                                                      JEF8   10
       GTOT%I<#0.                                                         RPT9   28
  102  CONTINUE                                                           RPT9   29
       DO 103 I#1,6                                                       RPT9   30
       TOT1%I<#TOT1%I<&SPLNT%I<                                           JEF8   11
       DO 104 J#1,2                                                       RPT9   31
       TOT1%I<#TOT1%I<&TACRE%J,I,4<                                       RPT9   32
  104  CONTINUE                                                           RPT9   33
  103  CONTINUE                                                           RPT9   34
       DO 105 I#2,4                                                       RPT9   35
       TOT2%I<#TOT2%I<&STACR%1,I-1<                                       RPT9   36
  105  CONTINUE                                                           RPT9   37
       DO 106 I#1,3                                                       RPT9   38
       TOT2%I<#TOT2%I<&STACR%2,I<                                         RPT9   39
  106  CONTINUE                                                           RPT9   40
       TOT2%3<#TOT2%3<&DCHAR                                              JEF8   12
       DO 1060 I#1,2                                                      JEF8   13
 1060  TOT2%I<#TOT2%I<&SHAR%I<                                            JEF8   14
       DO 107 I#1,3                                                       RPT9   41
       DO 108 J#1,15                                                      RPT9   42
       GTOT%I<#GTOT%I<&APRP%I,J<                                          RPT9   43
  108  CONTINUE                                                           RPT9   44
  107  CONTINUE                                                           RPT9   45
       DO 109 I#4,5                                                       RPT9   46
       J#I-3                                                              RPT9   47
       DO 110 K#1,6                                                       RPT9   48
       GTOT%I<#GTOT%I<&TACRE%J,K,4<                                       RPT9   49
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     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,CPRP,DCPRP,CCLAB,SCLAB,    COMDI   5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO     COMDI   6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                  JEF27   1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                 JEF34   1
      COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,     COMMN   1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6< COMMN   2
     2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                      JEF8    1
     3,TAB3%16,9<                                                       JEF34   1
 801   FORMAT%1H1,65X,@O.S.U. CROPPING BUDGET PAGE@,I4<                  RPT8    4
 800   FORMAT%@0  TABLE 8. PROJECTED SILAGE PRODUCTION BY DATE OF PLANTI RPT8    5
     *NG AND HARVESTING DATE@<                                          RPT8    6
 802 FORMAT%1H0,41X,@HARVESTING PERIOD@,24X,@TOTAL TONNAGE@<            RPT8    7
 804 FORMAT%68X,@TOTAL ACRES@,6X,@FROM THIS@<                           RPT8    8
 806 FORMAT%34X,@SEP.13-SEP.26@,7X,@SEP.27-OCT.17@,3X,@PLANTED@,5X,@PLA RPT8    9
     $NTING PERIOD@<                                                    RPT8   10
 808 FORMAT%4X,@PLANTING PERIOD@,18X,@ACRES@,12X,@ACRES@<               RPT8   11
 810 FORMAT%@0   A.APR.26-MAY 2@,14X,F10.1,7X,F10.1,6X,F10.1,F14.1<     RPT8   12
 812 FORMAT%@    B.MAY  3-MAY 9@,14X,F10.1,7X,F10.1,6X,F10.1,F14.1<     RPT8   13
 814 FORMAT%@    C.MAY 10-MAY16@,14X,F10.1,7X,F10.1,6X,F10.1,F14.1<     RPT8   14
 816 FORMAT%@    D.MAY 17-MAY23@,14X,F10.1,7X,F10.1,6X,F10.1,F14.1<     RPT8   15
 818 FORMAT%@    E.MAY 24-MAY30@,14X,F10.1,7X,F10.1,6X,F10.1,F14.1<     RPT8   16
 820 FORMAT%@    F.MAY 31-JUNE6@,14X,F10.1,7X,F10.1,6X,F10.1,F14.1<     RPT8   17
 822  FORMAT%@    G.TOTAL ACRES AND TONNAGE@,36X,F10.1,F14.1<           RPT8   18
 824  FORMAT%@    H.AVERAGE YIELD (TONS/ACRE)@,44X,F14.1<               RPT8   19
 826  FORMAT%33X,8%1H-<,9X,8%1H-<,8X,8%1H-<,6X,8%1H-<<                  RPT8   20
 828  FORMAT%33X,8%1H=<,9X,8%1H=<,8X,8%1H=<,6X,8%1H=<<                  RPT8   21
      IPAGE#IPAGE&1                                                     RPT8   22
      ASP#0.                                                            RPT8   23
      STON#0.                                                           RPT8   24
      DO 100 I#1,6                                                      RPT8   25
      ASP#ASP&TACRE%3,I,3<                                              RPT8   26
      STON#STON&TACRE%3,I,4<                                            RPT8   27
 100  CONTINUE                                                          RPT8   28
      IF%ASP.EQ.0.<RETURN                                               RPT8   29
      SYLD#STON/ASP                                                     RPT8   30
      WRITE%IO,801< IPAGE                                               RPT8   31
      WRITE%IO,800<                                                     RPT8   32
      WRITE%IO,802<                                                     RPT8   33
      WRITE%IO,804<                                                     RPT8   34
      WRITE%IO,806<                                                     RPT8   35
      WRITE%IO,808<                                                     RPT8   36
      WRITE%IO,810<%TACRE%3,1,J<,J#1,4<                                 RPT8   37
      WRITE%IO,812<%TACRE%3,2,J<,J#1,4<                                 RPT8   38
      WRITE%IO,814<%TACRE%3,3,J<,J#1,4<                                 RPT8   39
      WRITE%IO,816<%TACRE%3,4,J<,J#1,4<                                 RPT8   40
      WRITE%IO,818<%TACRE%3,5,J<,J#1,4<                                 RPT8   41
      WRITE%IO,820<%TACRE%3,6,J<,J#1,4<                                 RPT8   42
      WRITE%IO,826<                                                     RPT8   43
      WRITE%IO,822<ASP,STON                                             RPT8   44
      WRITE%IO,824<SYLD                                                 RPT8   45
      WRITE%IO,828<                                                     RPT8   46
       WRITE %IO,216<                                                   RPT8   47
 216  FORMAT%3X,126%1H*<<                                               RPT8   48
      RETURN                                                            RPT8   49
      END                                                               RPT8   50
      SUBROUTINE RPT9                                                   RPT9    1
      REAL*8 IDENT                                                      CHNG   10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,JEF18   1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,    COMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<, COMDI   3
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     1RCOL%110,IRNK<,STACR%1,K<,STACR%2,L<,SHAR%2<,TOT2%L<                    JEF8   45
208   FORMAT%3X,2A8,F7.0,F9.0,F8.0,F28.0,F6.0,F13.0,F7.0,F8.0,F13.0<           JEF8   46
      GO TO 114                                                               RPT9   95
1191  K#I-11                                                                  JEF8   47
      L#I-10                                                                  JEF8   48
      TEM5#STACR%2,L<&DCHAR                                                   JEF8   49
      WRITE%IO,215< %NAM2%I,J<,J#1,2<,%APRP%J,I<,J#1,3<,RCOL%111,IRNK<,       JEF8   50
     1RCOL%111,IRNK<,STACR%1,K<,TEM5,TOT2%L<                                  JEF8   51
215   FORMAT%3X,2A8,F7.0,F9.0,F8.0,F28.0,F6.0,F13.0,F7.0,F21.0<               JEF8   52
      GO TO 114                                                               JEF8   53
1190  WRITE%IO,213<%NAM2%I,J<,J#1,2<,%APRP%J,I<,J#1,3<,STACR%1,3<,            RPT9   96
     1TOT2%4<                                                                 RPT9   97
213   FORMAT%3X,2A8,F7.0,F9.0,F8.0,F47.0,F28.0<                               JEF8   54
      GO TO 114                                                               RPT9   99
120   WRITE %IO,205<%NAM2%I,J<,J#1,2<,%APRP%J,I<,J#1,3<                       RPT9  100
114   CONTINUE                                                                RPT9  101
211   FORMAT%22X,4%1H-<,5X,4%1H-<,4X,4%1H-<,2X,4%1H-<,3X,4%1H-<,4X,           JEF8   55
     14%1H-<,3X,4%1H-<,2X,4%1H-<,3X,4%1H-<,2X,4%1H-<,3X,4%1H-<,4X,4%1H-<     JEF8   56
     2,3X,4%1H-<,2X,4%1H-<<                                                   JEF8   57
      WRITE%IO,211<                                                           RPT9  104
      WRITE%IO,210<%GTOT%I<,I#1,14<                                           JEF8   58
210   FORMAT%13X,@TOTALS@,F7.0 ,F9.0,F8.0,F6.0,F7.0,F8.0,F7.0,F6.0,F7.0,       JEF8   59
     1F6.0,F7.0,F8.0,F7.0,F6.0/22X,4%1H=<,5X,4%1H=<,4X,4%1H=<,2X,4%1H=<,      JEF8   60
     13X,4%1H=<,4X,4%1H=<,3X,4%1H=<,        2X,4%1H=<,3X,4%1H=<,2X,          JE68   61
     14%1H=<,3X,4%1H=<,4X,4%1H=<,3X,4%1H=<,2X,4%1H=<<                         JEF8   62
212   FORMAT%1H0,2X,118%1H*<<                                                 JEF8   63
      WRITE%IO,212<                                                           RPT9  110
      RETURN                                                                  RPT9  111
      END                                                                     RPT9  112
      SUBROUTINE RPT10                                                        RPT10   1
      REAL*8 IDENT                                                            CHNG   10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,      JEF18   1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,          COMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,      COMDI   3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<     COMDI   4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,         COMDI   5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO           COMDI   6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                        JEF27   1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                       JEF34   1
      COMMON /INT2/IACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,           COMMN   1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6<       COMMN   2
     2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                            JEF8    1
     3,TAB3%16,9<                                                             JEF34   1
      COMMON/IT3/DWHT%6<                                                      RPT10   4
      REAL*8 NAM1,NAM2,NAM3,NAM4                                              CHNG   20
      EQUIVALENCE %NAM2%1,1<,NAM1%1<<,%NAM4%1,1<,NAM3%1<<                     RPT10  15
      DIMENSION TOT%5<,NAM1%30<,NAM2%15,2<,NAM3%8<,NAM4%4,2<                  RPT10   5
      DATA NAM1          /8HA. MAR.1,8HB. APR. ,8HC. APR.2                    RPT10   6
     1,8HD. MAY  ,8HE. MAY 1,8HF. MAY 1,8HG. MAY 2                            RPT10   7
     2,8HH. MAY 3,8HI. JUNE ,8HJ. JUNE1,8HK. SEP.1,                           RPT10   8
     3 8HL. SEP.2,8HM. OCT.1,8HN. NOV. ,8HO. NOV.2,8H5-APR.4                  RPT10   9
     1,8H5-APR.25,8H6-MAY  2,8H3-MAY  9,8HO-MAY 16,8H7-MAY 23,8H4-MAY 30      RPT10  10
     5,8H1-JUNE 6,8H7-JUNE13,8H4-JULY18,8H3-SEP.26,8H7-OCT.17,8H8-NOV. 7      RPT10  11
     6,8H8-NOV.28,8H9-MAR.14/                                                 JEF28   1
      DATA NAM3          /8HP. SEP.1,8HQ. SEP.2,8HR. OCT.1,8HS. NOV.          RPT10  13
     1,8H3-SEP.26,8H7-OCT.17,8H8-NOV. 7,8H8-NOV.28/                           RPT10  14
      IPAGE#IPAGE&1                                                           RPT10  16
      WRITE%IO,199< IPAGE                                                     RPT10  17
199   FORMAT%1H1,68X,@O.S.U. CROPPING BUDGET PAGE@,I4<                        RPT10  18
      WRITE%IO,200<                                                           RPT10  19
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110   CONTINUE                                                                RPT9  50
109   CONTINUE                                                                RPT9  51
      GTOT%5<#GTOT%5<&DCHAR                                                   JEF8  15
      DO 111 I#1,6                                                            RPT9  52
      GTOT%6<#GTOT%6<&SPLNT%I<                                                JEF8  16
111   CONTINUE                                                                RPT9  54
      DO 130 I#110,111                                                        JEF8  17
130   GTOT%7<#GTOT%7<&RCOL%I,IRNK<                                            JEF8  18
      DO 131 I#1,6                                                            JEF8  19
131   GTOT%8<#GTOT%8<&TOT1%I<                                                 JEF8  20
      GTOT%8<#GTOT%8<&DCHAR                                                   JEF8  21
      DO 133 I#110,111                                                        JEF8  22
133   GTOT%8<#GTOT%8<&RCOL%I,IRNK<                                            JEF8  23
      DO 112 I#1,10                                                           RPT9  55
      GTOT%9<#GTOT%9<&PPLNT%I<                                                JEF8  24
112   CONTINUE                                                                RPT9  57
      DO 113 I#10,11                                                          JEF8  25
      DO 1140 J#1,3                                                           RPT9  59
      GTOT%I<#GTOT%I<&STACR%I-9,J<                                            JEF8  26
1140  CONTINUE                                                                RPT9  61
113   CONTINUE                                                                RPT9  62
      GTOT%11<#GTOT%11<&DCHAR                                                 JEF8  27
      DO 132 I#1,2                                                            JEF8  28
132   GTOT%12<#GTOT%12<&SHAR%I<                                               JEF8  29
      GTOT%13<#WHAR                                                           JEF8  30
      DO 1150 I#1,4                                                           RPT9  63
      GTOT%14<#GTOT%14<&TOT2%I<                                               JEF8  31
1150  CONTINUE                                                                RPT9  65
      GTOT%14<#GTOT%14<&WHAR                                                  JEF8  32
      IPAGE#IPAGE&1                                                           RPT9  66
      WRITE%IO,199< IPAGE                                                     RPT9  67
      WRITE%IO,200<                                                           RPT9  68
      WRITE%IO,201<                                                           RPT9  69
      WRITE%IO,202<                                                           RPT9  70
      WRITE%IO,203<                                                           RPT9  71
205   FORMAT%3X,2A8,F7.0,F9.0,F8.0,F6.0,F7.0,F8.0,7X,F6.0,F7.0<               JEF8  33
      DO 114 I#1,15                                                           RPT9  73
      GO TO %115,115,116,116,116,116,116,116,117,1170,118,119,1191,1190,      JEF8  34
     *120<,I                                                                  RPT9  75
115   WRITE %IO,205<%NAM2%I,J<,J#1,2<,%APRP%J,I<,J#1,3<                       RPT9  76
      GO TO 114                                                               RPT9  77
116   K#I-2                                                                   RPT9  78
      WRITE %IO,205<%NAM2%I,J<,J#1,2<,%APRP%J,I<,J#1,3<,%TACRE%J,K,4<,        RPT9  79
     1J#1,2<,SPLNT%K<,TOT1%K<,PPLNT%I<                                        JEF8  35
      GO TO 114                                                               RPT9  81
117   WRITE %IO,206<%NAM2%I,J<,J#1,2<,%APRP%J,I<,J#1,3<,PPLNT%I<              RPT9  82
206   FORMAT%3X,2A8,F7.0,F9.0,F8.0,F41.0<                                     JEF8  36
      GO TO 114                                                               RPT9  84
1170  WRITE%IO,214< %NAM2%I,J<,J#1,2<,%APRP%J,I<,J#1,3<,DCHAR,DCHAR,          JEF8  37
     1PPLNT%I<,WHAR,WHAR                                                      JEF8  38
214   FORMAT%3X,2A8,F7.0,F9.0,F8.0,F13.0,F21.0,F7.0,F28.0,F6.0<               JEF8  39
      GO TO 114                                                               JEF8  40
118   K#I-10                                                                  RPT9  85
      WRITE%IO,207<%NAM2%I,J<,J#1,2<,%APRP%J,I<,J#1,3<,STACR%2,K<,            JEF8  41
     1SHAR%1<,TOT2%K<                                                         JEF8  42
207   FORMAT%3X,2A8,F7.0,F9.0,F8.0,F54.0,F8.0,F13.0<                          JEF8  43
      GO TO 114                                                               RPT9  89
119   K#I-11                                                                  RPT9  90
      L#I-10                                                                  RPT9  91
      WRITE%IO,208<%NAM2%I,J<,J#1,2<,%APRP%J,I<,J#1,3<,RCOL%110,IRNK<,        JEF8  44
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      L#114&I                                                                    RPT10 78
      DD%I<#DD%I<&RCOL%L,IRNK<                                                   UPDAT113
      WRITE%IO,254<%NAM4%J,K<,K#1,2<,RHS%I<,RCOL%L,IRNK<,DD%I<,DDD%I<,           RPT10 79
     1SHAD%I<                                                                    RPT10 80
      TOT%2<#TOT%2<&RCOL%L,IRNK<                                                 RPT10 81
      TOT%4<#TOT%4<&RCOL%L,IRNK<                                                 UPDAT114
254   FORMAT%3X,2A8,F11.0,F12.0,F23.0,F12.0,F17.2<                               RPT10 82
117   CONTINUE                                                                   RPT10 83
118   IF %R%490<.EQ.0..AND.%TACR%IRNK,2<&TACR%IRNK,3<<.EQ.0.< GO TO 120          UPDAT115
      IF %R%491<.GT.0..AND.R%490<.EQ.0.< GO TO 120                               UPDAT116
      WRITE%IO,255<                                                              RPT10 85
      DO 119 I#30,32                                                             RPT10 86
      J#I-29                                                                     RPT10 87
      L#104&I                                                                    RPT10 88
      M#107&I                                                                    RPT10 89
      DD%I<#DD%I<&RCOL%L,IRNK<                                                   UPDAT117
      WRITE%IO,230<%NAM4%J,K<,K#1,2<,RHS%I<,RCOL%L,IRNK<,RCOL%M,IRNK<,           RPT10 90
     1DD%I<,DDD%I<,SHAD%I<                                                       RPT10 91
      TOT%2<#TOT%2<&RCOL%L,IRNK<                                                 RPT10 92
      TOT%3<#TOT%3<&RCOL%M,IRNK<                                                 RPT10 93
      TOT%4<#TOT%4<&RCOL%L,IRNK<                                                 UPDAT118
119   CONTINUE                                                                   RPT10 94
255   FORMAT%3X,@SOYBEANS--@/3X,@SOYBEAN ONLY COMBINE@<                          RPT10 95
120   IF %R%489<.EQ.0..AND.TACR%IRNK,1<.EQ.0.< GO TO 122                         JEF7   4
      IF %R%491<.GT.0..AND.R%489<.EQ.0.< GO TO 122                               JEF32  2
      WRITE%IO,256<                                                              RPT10 97
256   FORMAT%3X,@CORN--@/3X,@CORN ONLY COMBINE@<                                 RPT10 98
      DO 121 I#33,35                                                             RPT10 99
      J#I-30                                                                     RPT10100
      L#95&I                                                                     RPT10101
      J#J-1                                                                      RPT10102
      M#98&I                                                                     RPT10103
      DD%I<#DD%I<&RCOL%L,IRNK<                                                   UPDAT119
      WRITE%IO,230<%NAM4%J,K<,K#1,2<,RHS%I<,RCOL%L,IRNK<,RCOL%M,IRNK<,           RPT10104
     1DD%I<,DDD%I<,SHAD%I<                                                       RPT10105
      TOT%2<#TOT%2<&RCOL%L,IRNK<                                                 RPT10106
      TOT%3<#TOT%3<&RCOL%M,IRNK<                                                 RPT10107
      TOT%4<#TOT%4<&RCOL%L,IRNK<                                                 UPDAT120
121   CONTINUE                                                                   RPT10108
122   IF %R%491<.EQ.0.< GO TO 125                                                RPT10109
      WRITE%IO,257<                                                              RPT10110
257   FORMAT%3X,@SOYBEANS--@/3X,@CORN-SOYBEAN COMBINE@<                          RPT10111
      DO 123 I#36,38                                                             RPT10112
      J#I-35                                                                     RPT10113
      L#136&J                                                                    UPDAT121
      L#L-3                                                                      RPT10116
      IF %R%490<< 1234,1234,1235                                                 UPDAT122
1234  DD%I<#DD%I<&RCOL%L,IRNK<                                                   UPDAT123
      WRITE%IO,230<%NAM4%J,K<,K#1,2<,RHS%I<,RCOL%L,IRNK<,RCOL%L&43,IRNK<RPT10117
     1,DD%I<,DDD%I<,SHAD%I<                                                      RPT10118
      TOT%2<#TOT%2<&RCOL%L,IRNK<                                                 RPT10119
      TOT%3<#TOT%3<&RCOL%L&43,IRNK<                                              RPT10120
      TOT%4<#TOT%4<&RCOL%L,IRNK<                                                 UPDAT124
      GO TO 123                                                                  RPT10121
1235  CONTINUE                                                                   RPT10122
      RC#0.                                                                      RPT10123
      WRITE%IO,230<%NAM4%J,K<,K#1,2<,RHS%I<,RC,RCOL%L&43,IRNK<,DD%I<,DDDRPT10124
     1%I<,SHAD%I<                                                                RPT10125
      TOT%3<#TOT%3<&RCOL%L&43,IRNK<                                              UPDAT125
123   CONTINUE                                                                   RPT10126
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      200 FORMAT%@0  TABLE 10.PROJECTED USE OF AVAILABLE MACHINE FIELD TIME RPT10  20
         1FOR ALL CROPS@<                                                  RPT10  21
          WRITE%IO,201<                                                    RPT10  22
      201 FORMAT%22X,@FIELD HOURS    PLUS       LESS       LESS  USED   REMARPT10  23
         1INING  ESTIMATED VALUE OF @<                                     RPT10  24
          WRITE%IO,202<                                                    RPT10  25
      202 FORMAT%23X,@AVAILABLE   CUSTOM IN  CUSTOM OUT  IN TABLE 9  FIELD HRPT10  26
         1OURS  EXTRA FIELD TIME @<                                        RPT10  27
          WRITE%IO,203<                                                    RPT10  28
      203 FORMAT%24X,@(HOURS)     (HOURS)    (HOURS)     (HOURS)      (HOURSRPT10  29
         1)        ($/HOUR)@<                                             RPT10  30
C     CALCULATE TOTALS                                                    RPT10  31
          DO 100 I#1,5                                                     RPT10  32
          TOT%I<#0.                                                        RPT10  33
      100 CONTINUE                                                         RPT10  34
          DO 101 I#1,41                                                    RPT10  35
          TOT%1<#TOT%1<&RHS%I<                                             RPT10  36
          TOT%4<#TOT%4<&DD%I<                                              RPT10  37
          TOT%5<#TOT%5<&DDD%I<                                             RPT10  38
      101 CONTINUE                                                         RPT10  39
      108 CONTINUE                                                         RPT10  40
          WRITE%IO,205<                                                    RPT10  41
      205 FORMAT%@0 1.PREPARATION AND@/@    FALL PLANTING@<                JEF19   1
      206 FORMAT%3X,2A8,F11.0,28X,F7.0,6X,F6.0,10X,F8.2<                   RPT10  43
          DO 113 I#1,8                                                     RPT10  44
          WRITE%IO,206<%NAM2%I,K<,K#1,2<,RHS%I<,DD%I<,DDD%I<,SHAD%I<       RPT10  45
      113 CONTINUE                                                         RPT10  46
          DO 114 I#9,13                                                    RPT10  47
          J#I&2                                                            RPT10  48
          WRITE%IO,206<%NAM2%J,K<,K#1,2<,RHS%I<,DD%I<,DDD%I<,SHAD%I<       RPT10  49
      114 CONTINUE                                                         RPT10  50
          WRITE%IO,207<                                                    RPT10  51
      207 FORMAT% @0 2.PLANTING @<                                         RPT10  52
          DO 115 I#14,19                                                   RPT10  53
          J#I-11                                                           RPT10  54
          WRITE%IO,206<%NAM2%J,K<,K#1,2<,RHS%I<,DD%I<,DDD%I<,SHAD%I<       RPT10  55
      115 CONTINUE                                                         RPT10  56
          WRITE%IO,209<                                                    RPT10  57
      209 FORMAT%@0 3.POST PLANTING AND@/@    SUMMER PLANTING@<            JEF19   2
          DO 116 I#20,27                                                   RPT10  59
          J#I-17                                                           RPT10  60
          WRITE%IO,206<%NAM2%J,K<,K#1,2<,RHS%I<,DD%I<,DDD%I<,SHAD%I<       RPT10  61
      116 CONTINUE                                                         RPT10  62
          WRITE%IO,211<                                                    RPT10  63
      211 FORMAT%@0 4.WHEAT HARVEST@<                                      RPT10  64
          DWHT%4<#DWHT%4<&DWHT%2<                                          UPDAT111
          WRITE%IO,213< %DWHT%I<,I#1, 6<                                   RPT10  65
          TOT%2<#TOT%2<&RCOL%140,IRNK<                                     RPT10  66
          TOT%3<#TOT%3<&RCOL%141,IRNK<                                     RPT10  67
          TOT%4<#TOT%4<&DWHT%2<                                            UPDAT112
      213 FORMAT %3X,@J.JUNE14-JULY18@,2F12.0,F11.0,F12.0,F12.0,F18.2<     RPT10  68
          WRITE%IO,220<                                                    RPT10  69
      220 FORMAT%@0 5.HARVESTING@<                                         RPT10  70
      230 FORMAT%3X,A8,A8,F11.0,F12.0,F11.0,F12.0,F12.0,F18.2<             RPT10  71
      250 FORMAT%26X,4%1H-<,8X,4%1H-<,7X,4%1H-<,8X,4%1H-<,8X,4%1H-<<       RPT10  72
      253 FORMAT%3X,@SILAGE@<                                              RPT10  73
          IF %R%493<.EQ.0..AND.ACRES%IRNK,10<.EQ.0.< GO TO 118             JEF7    1
          WRITE%IO,253<                                                    RPT10  75
          DO 117 I#28,29                                                   RPT10  76
          J#I-27                                                           RPT10  77
```

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101  FORMAT%@0@,33X,@LABOR@,40X,@FULL TIME ESTIMATED VALUE@/23X,@FULL-TRPT11  20
    1IME HELD IN  LABOR  PART-TIME  LABOR  TOTAL LABOR   LABOR      OF RPT11  21
    2 EXTRA@<                                                          RPT11  22
102  FORMAT%6X,@TIME PERIOD      AVAILABLE RESERVE   USED  AVAILABLE  HRPT11  23
    2IRED       USED        USED      LABOR  TIME@<                    RPT11  24
103  FORMAT%24X,@(HOURS)  (HOURS) (HOURS)  (HOURS)  (HOURS)   (HOURS)  RPT11  25
    2  (HOJRS)       ($/HOUR)@<                                        RPT11  26
 104 FORMAT%3X,2A8,F11.0,F9.0,F8.0,2F9.0,F10.0,F11.0,F15.2<             RPT11  27
105  FORMAT%24X,6%1H-<,3X,6%1H-<,2X,6%1H-<,3X,6%1H-<,3X,6%1H-<,4X,6%1H-RPT11  28
    2<,5X,6%1H-</12X,@TOTALS@,F12.0,F9.0,F8.0,2F9.0,F10.0,F11.0,F15.2< RPT11  29
106  FORMAT%24X,6%1H=<,3X,6%1H=<,2X,6%1H=<,3X,6%1H=<,3X,6%1H=<,4X,6%1H=RPT11  30
    2<,5X,6%1H=<<                                                      RPT11  31
107  FORMAT%3X,104%1H*<<                                               RPT11  32
     DO 200 I#1,15                                                     RPT11  33
     WRITE%IO,104<%NAM2%I,J<,J#1,2<,%TAB%I,J<,J#1,8<                   RPT11  34
200  CONTINUE                                                          RPT11  35
     WRITE%IO,105<%TAB%16,J<,J#1,7<                                    RPT11  36
108  FORMAT%3X,95HPLEASE NOTE--ANY DIFFERENCE BETWEEN TOTAL LABOR USED RPT11  37
    1AND FULL TIME LABOR EQUIVALENT USED MAY BE/16X,70HACCOUNTED FOR BYRPT11  38
    2 YOUR PART-TIME LABOR EFFICIENCY FACTOR (CELL NO. 459)<           RPT11  39
      WRITE%IO,106<                                                   RPT11  40
      WRITE%IO,107<                                                   RPT11  41
      WRITE%IO,108<                                                   RPT11  42
     RETURN                                                           RPT11  43
     END                                                              RPT11  44
     SUBROUTINE RPT12                                                 RPT12   1
     REAL*8 IDENT                                                     CHNG   10
     COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,JEF18   1
    1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,    COMDI   2
    2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<, COMDI   3
    3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<COMDI   4
    4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,   COMDI   5
    5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO     COMDI   6
    6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                  JEF27   1
    7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                 JEF34   1
     COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,     COMMN   1
    1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6< COMMN   2
    2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                      JEF8    1
    3,TAB3%16,9<                                                       JEF34   1
     REAL*8    NAM1%30<,NAM2%15,2<                                     RPT12   4
     EQUIVALENCE %NAM2%1,1<,NAM1%1<<                                   RPT12  12
     DATA NAM1              /8HA. MAR.1,8HB. APR. ,8HC. APR.2          RPT12   5
    1,8HD. MAY  ,8HE. MAY 1,8HF. MAY 1,8HG. MAY 2                      RPT12   6
    2,8HH. MAY 3,8HI. JUNE ,8HJ. JUNE1,8HK. SEP.1,                     RPT12   7
    3 8HL. SEP.2,8HM. OCT.1,8HN. NOV. ,8HO. NOV.2,8H5-APR.4            RPT12   8
    1,8H5-APR.25,8H6-MAY  2,8H3-MAY  9,8HO-MAY 16,8H7-MAY 23,8H4-MAY 30RPT12   9
    5,8H1-JUNE 6,8H7-JUNE13,8H4-JULY18,8H3-SEP.26,8H7-OCT.17,8H8-NOV. 7RPT12  10
    6,8H8-NOV.28,8H9-MAR.14/                                           JEF28   1
200  FORMAT%1HO,@  TABLE 12. PROJECTED USE OF AVAILABLE LABOR FOR CORN,RPT12  13
    1SOYBEANS,WHEAT,DOUBLE CROP SOYBEANS, AND SILAGE@<                 RPT12  14
201  FORMAT%1HO,22X,@LABOR FOR     LABOR     LABOR WHEAT    CUSTOM COMBRPT12  15
    1INING    FULL TIME@<                                              RPT12  16
202  FORMAT%6X,@TIME PERIOD@,7X,@CORN AND      FOR        AND DOUBLE   RPT12  17
    1PROVIDED   USED        LABOR@<                                    RPT12  18
2025 FORMAT%25X,@SILAGE    SOYBEANS    CROP SOYBEANS@,21X,@RECONCILIATIORPT12  19
    1N@<                                                               RPT12  20
203  FORMAT%24X,@(HOURS)      (HOURS)      (HOURS)      (HOURS)  (HOURS)RPT12  21
    1     (HOURS)@<                                                    RPT12  22
204  FORMAT%3X,A10,A6,F11.0,F12.0,F13.0,F34.0<                         RPT12  23
205  FORMAT%23X,7%1H-<,5X,7%1H-<,6X,7%1H-<,6X,7%1H-<,2X,7%1H-<,5X,7%1H-RPT12  24
```

```
      WRITE%IO,258<                                                                  RPT10127
  258 FORMAT%3X,@CORN--@/3X,@CORN-SOYBEAN COMBINE@<                                  RPT10128
      DO 124 I#39,41                                                                 RPT10129
      J#I-38                                                                         RPT10130
      L#130&J                                                                        UPDAT126
      L#L-3                                                                          RPT10133
      J#J&1                                                                          RPT10134
      IF %R%489<< 1236,1236,1237                                                     UPDAT127
 1236 DD%I<#DD%I<&RCOL%L,IRNK<                                                       UPDAT128
      WRITE%IO,230<%NAM4%J,K<,K#1,2<,RHS%I<,RCOL%L,IRNK<,RCOL%L&46,IRNK<RPT10135
     1,DD%I<,DDD%I<,SHAD%I<                                                          RPT10136
      TOT%2<#TOT%2<&RCOL%L,IRNK<                                                     RPT10137
      TOT%3<#TOT%3<&RCOL%L&46,IRNK<                                                  RPT10138
      TOT%4<#TOT%4<&RCOL%L,IRNK<                                                     UPDAT129
      GO TO 124                                                                      RPT10139
 1237 CONTINUE                                                                       RPT10140
      RC#0.                                                                          RPT10141
      WRITE%IO,230<%NAM4%J,K<,K#1,2<,RHS%I<,RC,RCOL%L&46,IRNK<,DD%I<,DDDRPT10142
     1%I<,SHAD%I<                                                                    RPT10143
      TOT%3<#TOT%3<&RCOL%L&46,IRNK<                                                  UPDAT130
  124 CONTINUE                                                                       RPT10144
  125 WRITE%IO,250<                                                                  RPT10145
      WRITE%IO,240<%TOT%I<,I#1,5<                                                    RPT10146
  240 FORMAT%11X,@TOTALS@,F13.0,F12.0,F11.0,F12.0,F12.0<                             RPT10147
  251 FORMAT%26X,4%1H=<,8X,4%1H=<,7X,4%1H=<,8X,4%1H=<,8X,4%1H=<<                     RPT10148
      WRITE%IO,251<                                                                  RPT10149
  252 FORMAT%2X,100%1H*<<                                                            RPT10150
      WRITE%IO,252<                                                                  RPT10151
      RETURN                                                                         RPT10152
      END                                                                            RPT10153
      SUBROUTINE RPT11                                                               RPT11   1
      REAL*8 IDENT                                                                   CHNG   10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,JEF18   1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,     COMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,  COMDI   3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<COMDI   4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,    COMDI   5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO      COMDI   6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                   JEF27   1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                  JEF34   1
      COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,       COMMN   1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6<  COMMN   2
     2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                       JEF8    1
     3,TAB3%16,9<                                                        JEF34   1
      REAL*8    NAM1%30<,NAM2%15,2<                                      RPT11   4
      EQUIVALENCE %NAM2%1,1<,NAM1%1<<                                    RPT11  12
      DATA NAM1           /8HA. MAR.1,8HB. APR. ,8HC. APR.2              RPT11   5
     1,8HD. MAY  ,8HE. MAY 1,8HF. MAY 1,8HG. MAY 2                       RPT11   6
     2,8HH. MAY 3,8HI. JUNE ,8HJ. JUNE1,8HK. SEP.1,                      RPT11   7
     3 8HL. SEP.2,8HM. OCT.1,8HN. NOV. ,8HO. NOV.2,8H5-APR.4             RPT11   8
     1,8H5-APR.25,8H6-MAY  2,8H3-MAY  9,8HO-MAY 16,8H7-MAY 23,8H4-MAY 30RPT11   9
     5,8H1-JUNE 6,8H7-JUNE13,8H4-JULY18,8H3-SEP.26,8H7-OCT.17,8H8-NOV. 7RPT11  10
     6,8H8-NOV.28,8H9-MAR.14/                                            JEF28   1
       IPAGE # IPAGE&1                                                   RPT11  13
      WRITE%IO,100< IPAGE                                                RPT11  14
      WRITE%IO,101<                                                      RPT11  15
      WRITE%IO,102<                                                      RPT11  16
      WRITE%IO,103<                                                      RPT11  17
  100 FORMAT%1H1,68X,27HO.S.U. CROPPING BUDGET PAGE,I4/61HO  TABLE 11.SURPT11  18
     1MMARY OF PROJECTED PROFILE OF LABOR UTILIZATION<                   RPT11  19
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```
      RB%40<#R%57<                                                    RPT13  32
      RB%41<#R%53<                                                    RPT13  33
      RB%42<#R%54<                                                    RPT13  34
      RB%43<#R%58<                                                    RPT13  35
      RB%44<#R%55<                                                    RPT13  36
      RB%45<#R%56<                                                    RPT13  37
      RB%46<#R%516<                                                   RPT13  38
      RB%50<#R%528<                                                   RPT13  39
      DO 101 LP#1,7                                                   RPT13  40
      GO TO %102,103,104,105,106,107,108<,LP                          RPT13  41
102   J#43                                                            RPT13  42
      IBEG#45                                                         RPT13  43
      GO TO 109                                                       RPT13  44
103   J#44                                                            RPT13  45
      IBEG#65                                                         RPT13  46
      GO TO 109                                                       RPT13  47
104   J#45                                                            RPT13  48
      IBEG#85                                                         RPT13  49
      GO TO 109                                                       RPT13  50
105   J#46                                                            RPT13  51
      IBEG#105                                                        RPT13  52
      GO TO 109                                                       RPT13  53
106   J#47                                                            RPT13  54
       IBEG#125                                                       RPT13  55
      GO TO 109                                                       RPT13  56
107   J#48                                                            RPT13  57
      IBEG#145                                                        RPT13  58
      GO TO 109                                                       RPT13  59
108   J#49                                                            RPT13  60
      IBEG#165                                                        RPT13  61
109   DO 110 ILP#1,3                                                  RPT13  62
      J#J&7                                                           RPT13  63
      K#J                                                             RPT13  64
      IBEG#IBEG&6                                                     RPT13  65
      IEND#IBEG&5                                                     RPT13  66
      DO 1100 I#IBEG,IEND                                             RPT13  67
      K#K&21                                                          RPT13  68
      RB%I<#R%K<                                                      RPT13  69
1100  CONTINUE                                                        RPT13  70
110   CONTINUE                                                        RPT13  71
101   CONTINUE                                                        RPT13  72
      RB%200<#R%531<                                                  RPT13  73
      DO 111 LP#1,6                                                   RPT13  74
      GO TO %112,113,114,115,116,117<,LP                              RPT13  75
112   J#173                                                           RPT13  76
      IBEG#195                                                        RPT13  77
      GO TO 118                                                       RPT13  78
113   J#178                                                           RPT13  79
      IBEG#215                                                        RPT13  80
      GO TO 118                                                       RPT13  81
114   J#175                                                           RPT13  82
      IBEG#235                                                        RPT13  83
      GO TO 118                                                       RPT13  84
115   J#174                                                           RPT13  85
      IBEG#255                                                        RPT13  86
      GO TO 118                                                       RPT13  87
116   J#176                                                           RPT13  88
      IBEG#275                                                        RPT13  89
      GO TO 118                                                       RPT13  90
117   J#177                                                           RPT13  91
```

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     1</12X,6HTOTALS,2F12.0,2F13.0,F9.0,F12.                                  RPT12  25
206   FORMAT%23X,7%1H=<,5X,7%1H=<,6X,7%1H=<,8X,7%1H=<,2X,7%1H=<,5X,7%1H=      RPT12  26
     1<<                                                                      RPT12  27
207   FORMAT%3X,94%1H*<<                                                      RPT12  28
208   FORMAT%59HO  PLEASE NOTE--AN * INDICATES THE AMOUNT WAS LESS THAN        RPT12  29
     1ONE<                                                                    RPT12  30
 209  FORMAT%3X,A8,A8,F11.0,F12.0,2F13.0,F9.0,F12.0<                          RPT12  31
      WRITE%IO,200<                                                          RPT12  32
      WRITE%IO,201<                                                          RPT12  33
      WRITE%IO,202<                                                          RPT12  34
      WRITE%IO,2025<                                                         RPT12  35
      WRITE%IO,203<                                                          RPT12  36
      DO 100 I#1,15                                                          RPT12  37
      WRITE%IO,209< %NAM2%I,J<,J#1,2<,%TABB%I,J<,J#1,6<                      RPT12  38
100   CONTINUE                                                               RPT12  39
      WRITE%IO,205< %TABB%16,J<,J#1,6<                                       RPT12  40
      WRITE%IO,206<                                                          RPT12  41
      WRITE%IO,207<                                                          RPT12  42
      WRITE%IO,208<                                                          RPT12  43
      RETURN                                                                 RPT12  44
      END                                                                    RPT12  45
      SUBROUTINE RPT13                                                       RPT13   1
      REAL*8 IDENT                                                           CHNG   10
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,     JEF18   1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,         COMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,      COMDI   3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<     COMDI   4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,        COMDI   5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CTA%2,3,3<,BTA%2,3,3<,TCOMBI%2<,IO          COMDI   6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                       JEF27   1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                      JEF34   1
      DIMENSION RB%657<                                                      RPT13   3
      IO#6                                                                   RPT13   4
      DO 99 I#1,657                                                          RPT13   5
      RB%I<#0.                                                               RPT13   6
99    CONTINUE                                                               RPT13   7
      RB%10<#R%28<                                                           RPT13   8
      RB%11<#R%29<                                                           RPT13   9
      RB%12<#R%561<                                                          RPT13  10
      RB%13<#R%562<                                                          RPT13  11
      RB%14<#R%32<                                                           RPT13  12
      RB%15<#R%33<                                                           RPT13  13
      RB%16<#R%30<                                                           RPT13  14
      RB%17<#R%31<                                                           RPT13  15
      J#1                                                                    RPT13  16
      DO 100 I#18,21                                                         RPT13  17
      J#J&1                                                                  RPT13  18
      RB%I<#R%J<                                                             RPT13  19
100   CONTINUE                                                               RPT13  20
      RB%22<#R%550<                                                          RPT13  21
      RB%30<#R%34</1000.                                                     JEF10   1
      RB%31<#R%59<                                                           RPT13  23
      RB%32<#R%560<                                                          RPT13  24
      RB%33<#R%61<                                                           RPT13  25
      RB%34<#R%62<                                                           RPT13  26
      RB%35<#R%63<                                                           RPT13  27
      RB%36<#R%60<                                                           RPT13  28
      RB%37<#R%554<                                                          RPT13  29
      RB%38<#R%64<                                                           RPT13  30
      RB%39<#R%553<                                                          RPT13  31
```

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123   CONTINUE                                                    RPT13152
      J#345                                                       RPT13153
      DO 131 I#376,381                                            RPT13154
      J#J&1                                                       RPT13155
      RB%I<#R%J<                                                  RPT13156
131   CONTINUE                                                    RPT13157
      J#405                                                       RPT13158
      DO 132 I#412,414                                            RPT13159
      J#J&1                                                       RPT13160
      RB%I<#R%J<                                                  RPT13161
132   CONTINUE                                                    RPT13162
      RB%415<#R%341<                                              RPT13163
      RB%416<#R%400<                                              RPT13164
      DO 133 LP#1,6                                               RPT13165
      GO TO %134,135,136,137,138,139<,LP                          RPT13166
134   J#315                                                       RPT13167
      IBEG#417                                                    RPT13168
      GO TO 140                                                   RPT13169
135   J#335                                                       RPT13170
      IBEG#422                                                    RPT13171
      GO TO 140                                                   RPT13172
136   J#400                                                       RPT13173
      IBEG#430                                                    RPT13174
      GO TO 140                                                   RPT13175
137   J#384                                                       RPT13176
      IBEG#435                                                    RPT13177
      GO TO 140                                                   RPT13178
138   J#389                                                       RPT13179
      IBEG#440                                                    RPT13180
      GO TO 140                                                   RPT13181
139   J#394                                                       RPT13182
      IBEG#445                                                    RPT13183
140   IEND#IBEG&4                                                 RPT13184
      DO 141 I#IBEG,IEND                                          RPT13185
      J#J&1                                                       RPT13186
      RB%I<#R%J<                                                  RPT13187
141   CONTINUE                                                    RPT13188
133   CONTINUE                                                    RPT13189
      DO 142 LP#1,2                                               RPT13190
      GO TO%143,144<,LP                                           RPT13191
143   J#410                                                       RPT13192
      IBEG#450                                                    RPT13193
      IEND#451                                                    RPT13194
      GO TO 145                                                   RPT13195
144   J#485                                                       RPT13196
      IBEG#453                                                    RPT13197
      IEND#455                                                    RPT13198
145   DO 146 I#IBEG,IEND                                          RPT13199
      J#J&1                                                       RPT13200
      RB%I<#R%J<                                                  RPT13201
146   CONTINUE                                                    RPT13202
142   CONTINUE                                                    RPT13203
      RB%452<#R%558<                                              RPT13204
      J#66                                                        RPT13205
      DO 147 I#456,459                                            RPT13206
      J#J&1                                                       RPT13207
      RB%I<#R%J<                                                  RPT13208
147   CONTINUE                                                    RPT13209
      J#321                                                       RPT13210
      DO 1470 I#427,429                                           RPT13211
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      IBEG#295                                                          RPT13  92
118   DO 119 ILP#1,3                                                    RPT13  93
      J#J&6                                                             RPT13  94
      K#J                                                               RPT13  95
      IBEG#IBEG&6                                                       RPT13  96
      IEND#IBEG&5                                                       RPT13  97
      DO 120 I#IBEG,IEND                                                RPT13  98
      K#K&18                                                            RPT13  99
      RB%I<#R%K<                                                        RPT13100
120   CONTINUE                                                          RPT13101
119   CONTINUE                                                          RPT13102
111   CONTINUE                                                          RPT13103
      RB%319<#R%563<                                                    RPT13104
      RB%320<#R%551<                                                    RPT13105
      RB%321<#R%522<                                                    RPT13106
      RB%322<#R%523<                                                    RPT13107
      RB%323<#R%519<                                                    RPT13108
      RB%324<#R%518<                                                    RPT13109
      RB%325<#R%520<                                                    RPT13110
      RB%326<#R%521<                                                    RPT13111
      RB%327<#R%552<                                                    RPT13112
      RB%328<#R%535<                                                    RPT13113
      RB%329<#R%536<                                                    RPT13114
      RB%330<#R%538<                                                    RPT13115
      RB%331<#R%537<                                                    RPT13116
      RB%333<#R%540<                                                    RPT13117
      RB%332<#R%539<                                                    RPT13118
      RB%334<#R%557<                                                    RPT13119
      J#7                                                               RPT13120
      DO 122I#335,342                                                   RPT13121
      J#J&1                                                             RPT13122
      RB%I<#R%J<                                                        RPT13123
122   CONTINUE                                                          RPT13124
      RB%350<#R%305<                                                    RPT13125
      RB%351<#R%325<                                                    RPT13126
      RB%352<#R%345<                                                    RPT13127
      RB%353<#R%352<                                                    RPT13128
      RB%354<#R%363<                                                    RPT13129
      RB%355<#R%374<                                                    RPT13130
      DO 123 LP#1,5                                                     RPT13131
      GO TO%124,125,126,127,128<,LP                                     RPT13132
124   J#305                                                             RPT13133
      IBEG#356                                                          RPT13134
      GO TO 129                                                         RPT13135
125   J#325                                                             RPT13136
      IBEG#366                                                          RPT13137
      GO TO 129                                                         RPT13138
126   J#352                                                             RPT13139
      IBEG#382                                                          RPT13140
      GO TO 129                                                         RPT13141
127   J#363                                                             RPT13142
      IBEG#392                                                          RPT13143
      GO TO 129                                                         RPT13144
128   J#374                                                             RPT13145
      IBEG#402                                                          RPT13146
129   IEND#IBEG&9                                                       RPT13147
      DO 130 I#IBEG,IEND                                                RPT13148
      J#J&1                                                             RPT13149
      RB%I<#R%J<                                                        RPT13150
130   CONTINUE                                                          RPT13151
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      I#I&4                                                          RPT13272
      RB%I<#R%J<                                                     RPT13273
168   CONTINUE                                                       RPT13274
162   CONTINUE                                                       RPT13275
      DO 169 LP#1,3                                                  RPT13276
      GO TO %170,171,172<,LP                                         RPT13277
170   I#557                                                          RPT13278
      IBEG#431                                                       RPT13279
      GO TO 173                                                      RPT13280
171   I#558                                                          RPT13281
      IBEG#449                                                       RPT13282
      GO TO 173                                                      RPT13283
172   I#559                                                          RPT13284
      IBEG#481                                                       RPT13285
173   IEND#IBEG&3                                                    RPT13286
      DO 174 J#IBEG,IEND                                             RPT13287
      I#I&3                                                          RPT13288
      RB%I<#R%J<                                                     RPT13289
174   CONTINUE                                                       RPT13290
169   CONTINUE                                                       RPT13291
      DO 175 LP#1,3                                                  RPT13292
      GO TO %176,177,178<,LP                                         RPT13293
176   I#569                                                          RPT13294
      IBEG#541                                                       RPT13295
      GO TO 179                                                      RPT13296
177   I#570                                                          RPT13297
      IBEG#544                                                       RPT13298
      GO TO 179                                                      RPT13299
178   I#571                                                          RPT13300
      IBEG#547                                                       RPT13301
179   IEND#IBEG&2                                                    RPT13302
      DO 180 J#IBEG,IEND                                             RPT13303
      I#I&3                                                          RPT13304
      RB%I<#R%J<                                                     RPT13305
180   CONTINUE                                                       RPT13306
175   CONTINUE                                                       RPT13307
      RB%610<#R%489<                                                 RPT13308
      RB%613<#R%490<                                                 RPT13309
      RB%616<#R%491<                                                 RPT13310
      RB%621<#R%492<                                                 RPT13311
      RB%624<#R%493<                                                 RPT13312
      RB%611<#R%494<                                                 RPT13313
      RB%617<#R%495<                                                 RPT13314
      RB%612<#R%497<                                                 RPT13315
      RB%618<#R%498<                                                 RPT13316
      RB%614<#R%500<                                                 RPT13317
      RB%619<#R%501<                                                 RPT13318
      RB%622<#R%502<                                                 RPT13319
      RB%615<#R%505<                                                 RPT13320
      RB%620<#R%506<                                                 RPT13321
      RB%623<#R%507<                                                 RPT13322
      RB%625<#R%510<                                                 RPT13323
      RB%626<#R%496<                                                 RPT13324
      RB%627<#R%499<                                                 RPT13325
      RB%628<#R%503<                                                 RPT13326
      RB%629<#R%508<                                                 RPT13327
      RB%630<#R%504<                                                 RPT13328
      RB%631<#R%509<                                                 RPT13329
      RB%632<#R%511<                                                 RPT13330
      RB%640<#R%47<                                                  RPT13331
```

```
      J#J&1                                                          RPT13212
      RB%I<#R%J<                                                     RPT13213
1470  CONTINUE                                                       RPT13214
      DO 148 LP#1,4                                                  RPT13215
      GO TO %149,150,151,152<,LP                                     RPT13216
149   I#496                                                          RPT13217
      IBEG#417                                                       RPT13218
      GO TO 153                                                      RPT13219
150   I#497                                                          RPT13220
      IBEG#435                                                       RPT13221
      GO TO 153                                                      RPT13222
151   I#498                                                          RPT13223
      IBEG#453                                                       RPT13224
      GO TO 153                                                      RPT13225
152   I#499                                                          RPT13226
      IBEG#467                                                       RPT13227
153   IEND#IBEG&9                                                    RPT13228
      DO 154 J#IBEG,IEND                                             RPT13229
      I#I&4                                                          RPT13230
      RB%I<#R%J<                                                     RPT13231
154   CONTINUE                                                       RPT13232
148   CONTINUE                                                       RPT13233
      RB%540<#R%413<                                                 RPT13234
      RB%541<#R%414<                                                 RPT13235
      RB%550<#R%415<                                                 RPT13236
      RB%551<#R%416<                                                 RPT13237
      DO 155 LP#1,4                                                  RPT13238
      GO TO %156,157,158,159<,LP                                     RPT13239
156   I#538                                                          RPT13240
      IBEG#427                                                       RPT13241
      GO TO 160                                                      RPT13242
157   I#539                                                          RPT13243
      IBEG#445                                                       RPT13244
      GO TO 160                                                      RPT13245
158   I#540                                                          RPT13246
      IBEG#463                                                       RPT13247
      GO TO 160                                                      RPT13248
159   I#541                                                          RPT13249
      IBEG#477                                                       RPT13250
160   IEND#IBEG&1                                                    RPT13251
      DO 161 J#IBEG,IEND                                             RPT13252
      I#I&4                                                          RPT13253
      RB%I<#R%J<                                                     RPT13254
161   CONTINUE                                                       RPT13255
155   CONTINUE                                                       RPT13256
      DO 162 LP#1,4                                                  RPT13257
      GO TO %163,164,165,166<,LP                                     RPT13258
163   I#548                                                          RPT13259
      IBEG#429                                                       RPT13260
      GO TO 167                                                      RPT13261
164   I#549                                                          RPT13262
      IBEG#447                                                       RPT13263
      GO TO 167                                                      RPT13264
165   I#550                                                          RPT13265
      IBEG#465                                                       RPT13266
      GO TO 167                                                      RPT13267
166   I#551                                                          RPT13268
      IBEG#479                                                       RPT13269
167   IEND#IBEG&1                                                    RPT13270
      DO 168 J#IBEG,IEND                                             RPT13271
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      48H1-JUNE 6,8H7-JUNE13,8H4-JULY18,8H3-SEP.26,8H7-OCT.17,8H8-NOV. 7,RPT14  10
      58H8-NOV.28,8H9-MAR.14/                                            RPT14  11
  200  FORMAT%1H1,94X,@O.S.U. CROPPING BUDGET PAGE@,I3/@O TABLE 13. PROJERPT14  12
      1CTED TRACTOR UTILIZATION FOR CORN, SOYBEANS, WHEAT, D.C. SOYBEANS RPT14  13
      2AND SILAGE@/@0@,19X,@TRACTOR  TRACTOR USAGE TRACTOR USAGE TRACTOR RPT14  14
      3USAGE CUSTOM TRACTOR TOTAL TRACTOR REMAINING ESTIMATED VALUE@/     RPT14  15
      421X,@HOURS      CORN AND@,9X,@FOR@,8X,@WHEAT AND@,7X,@HOURS@,10X,  RPT14  16
      5@HOURS       TRACTOR     OF EXTRA@/@    TIME PERIOD    AVAILABLE   RPT14  17
      6 SILAGE         SOYBEANS    D.C. SOYBEANS PROVIDED  USED      USED@, RPT14  18
      7 8X,@HOURS     TRACTOR TIME@/32X,@(HOURS)@,7X,@(HOURS)@,7X,@(HOURS)RPT14  19
      8@,46X,@($/HOUR)@/1HO<                                             RPT14  20
  201  FORMAT%2X,2A8,F8.0,F11.0,F14.0,F44.0,F12.0,F14.2<                  RPT14  21
  202  FORMAT%2X,2A8,F8.0,F11.0,2F14.0,F30.0,F12.0,F14.2<                 RPT14  22
  203  FORMAT%21X,5%1H-<,4X,7%1H-<,7X,7%1H-<,7X,7%1H-<,4X,7%1H-<,4X,      RPT14  23
      A5%1H-<,5X,5%1H-<,7X,5%1H-</12X,6HTOTALS,F8.0,F11.0,2F14.0,F30.0,   RPT14  24
      BF12.0       /21X,5%1H=<,4X,7%1H=<,7X,7%1H=<,7X,7%1H=<,4X,7%1H=<,4X,RPT14  25
      C5%1H=<,5X,5%1H=<,7X,5%1H=<<                                       RPT14  26
       IPAGE#IPAGE&1                                                     RPT14  27
       WRITE%IO,200<IPAGE                                                RPT14  28
       DO 100 I#3,8                                                      RPT14  29
       WRITE%IO,201< %NAM2%I,J<,J#1,2<,%TAB3%I,J<,J#1,3<,%TAB3%I,J<,J#7,9RPT14  30
      *<                                                                 RPT14  31
  100  CONTINUE                                                          RPT14  32
       DO 101 I#11,14                                                    RPT14  33
       WRITE%IO,202<%NAM2%I,J<,J#1,2<,%TAB3%I,J<,J#1,4<,%TAB3%I,J<,J#7,9<RPT14  34
  101  CONTINUE                                                          RPT14  35
       WRITE%IO,203<%TAB3%16,J<,J#1,4<,%TAB3%16,J<,J#7,8<                RPT14  36
       RETURN                                                            RPT14  37
       END                                                               RPT14  38
/*
//LKED.SYSLMOD DD DSN=UKU.@AEC01.LOAD,UNIT=3330,
//             VOL=REF=*.S1.LKED.SYSLMOD,DISP=OLD
//LKED.SYSIN DD *
  NAME B91(R)
/*
//SM4  EXEC  PGM=OEHMOVE,TIME=(,30)
//STEPLIB  DD  DSN=SYS1.JOBLIB,DISP=SHR
//SYSPRINT  DD  SYSOUT=A
//DISK DD  UNIT=3330,VOL=SER=IRCC77,DISP=OLD
//TAPE  DD  UNIT=TAPE9,VOL=SER=CFP01,DISP=OLD
//SYSUT1  DD  UNIT=SYSDA,SPACE=(CYL,(1,1))
//SYSIN  DD  *
 COPY PDS=UKU.@AEC01.LOAD,FROMDD=DISK,FROM=3330=IRCC77,                X
               TODD=TAPE,TO=TAPE9=(CFP01,1)
/*
//
```

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      RB%641<#R%48<                                                          RPT13332
      RB%642<#R%555<                                                         RPT13333
      RB%643<#R%556<                                                         RPT13334
      RB%644<#R%45<                                                          RPT13335
      RB%645<#R%559<                                                         RPT13336
      RB%646<#R%46<                                                          RPT13337
      RB%647<#R%49<                                                          RPT13338
      RB%648<#R%50<                                                          RPT13339
      RB%650<#R%524<                                                         RPT13340
      J#523                                                                  RPT13341
      DO 181 I#651,653                                                       RPT13342
      J#J&3                                                                  RPT13343
      RB%I<#R%J<                                                             RPT13344
181   CONTINUE                                                               RPT13345
      J#524                                                                  RPT13346
      DO 182 I#655,657                                                       RPT13347
      J#J&3                                                                  RPT13348
      RB%I<#R%J<                                                             RPT13349
182   CONTINUE                                                               RPT13350
      RB%654<#R%525<                                                         RPT13351
      RB%49<#R%564<                                                          JEF27   1
      RB%199<#R%565<                                                         JEF27   2
      WRITE%IO,1< IDENT,%HEAD%I<,I#1,10<                                     JEF10   2
1     FORMAT%@1@,A7,@ @ ,10A4/@0CELL  +0@,5X,@+1@,5X,@+2@,5X,@+3@,6X,@+4CHNG  20
     1@,6X,@+5@,6X,@+6@,6X,@+7@,6X,@+8@,6X,@+9@<                            CHNG  30
      DO 183 I#10,459,10                                                     JEF15   1
      IEND#I&9                                                               JEF9    4
      IF %IEND.GT.459< IEND#459                                              JEF15   2
      WRITE%IO,2< I,%RB%J<,J#I,IEND<                                         JEF9    6
2     FORMAT%I4,3F7.2,7F8.2<                                                 JEF9    7
183   CONTINUE                                                               JEF9    8
      DO 184 I#500,649,10                                                    JEF15   3
      IEND#I&9                                                               JEF15   4
      IF %IEND.GT.649< IEND#649                                              JEF15   5
      WRITE%IO,2< I,%RB%J<,J#I,IEND<                                         JEF15   6
184   CONTINUE                                                               JEF15   7
      WRITE%IO,3< %RB%I<,I#650,657<                                          JEF15   8
3     FORMAT%4H 650,F7.0,2F7.2,7F8.2<                                        JEF16   1
      RETURN                                                                 RPT13357
      END                                                                    RPT13358
      SUBROUTINE RPT14                                                       RPT14   1
      REAL*8 IDENT                                                           VIVDM   2
      COMMON/INT1/R%600<,RSOL%116,2<,RCOL%186,2<,BCSOL%2,46,2<,HEAD%10<,     JEF18   1
     1ACHR%3<,ACRES%2,11<,PROD%2,11<,PRICE%11<,SOL%2,16<,VC%2,12,9<,         COMDI   2
     2AVCT%2,9<,UVCT%2,3<,FCT%2,4<,TCSTS%2<,PROFT%2<,AVC%2,8<,AVY%2,8<,      COMDI   3
     3AVS%2,8<,AVRT%2,8<,AMOI%2,2<,COMBH%2,3<,TACR%2,3<,TCOMB%2<,RHS%41<     COMDI   4
     4,AWORK%12,18<,BWORK%12,18<,CLPRP,SLPRP,WLPRP,DCPRP,CCLAB,SCLAB,        COMDI   5
     5WCLAB,IPAGE,IOUT,INPT,IRNK,CIA%2,3,3<,BIA%2,3,3<,ICOMBI%2<,IO          COMDI   6
     6,RSHAD%83,2<,NMAX,IDENT,CHLAB,SHLAB,WHLAB,SICLAB                      JEF27   1
     7,AWRK%6,18<,BWRK%6,18<,SWRK%6,12<                                     JEF34   1
      COMMON /INT2/TACRE%3,6,4<,TPROD%2,6,4<,STACR%2,4<,STPRD%2,4<,          COMMN   1
     1APRP%3,15<,PPLNT%10<,DD%41<,DDD%41<,SHAD%41<,TAB%16,8<,TABB%16,6<     COMMN   2
     2,SPLNT%6<,WHAR,SHAR%2<,DCHAR                                          JEF8    1
     3,TAB3%16,9<                                                           JEF34   1
      REAL*8     NAM1%30<,NAM2%15,2<                                        RPT14   4
      EQUIVALENCE%NAM2%1,1<,NAM1%1<<                                         RPT14   5
      DATA NAM1              /8HA. MAR.1,8HB. APR. ,8HC. APR.2,8HD. MAY   , RPT14   6
     18HE. MAY 1,8HF. MAY 1,8HG. MAY 2,8HH. MAY 3,8HI. JUNE ,8HJ. JUNE1,    RPT14   7
     28HK. SEP.1,8HL. SEP.2,8HM. OCT.1,8HN. NOV. ,8HO. NOV.2,8H5-APR. 4,    RPT14   8
     38H5-APR.25,8H6-MAY  2,8H3-MAY  9,8H0-MAY 16,8H7-MAY 23,8H4-MAY 30,    RPT14   9
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